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ACCOUNTING THEORY AND PRACTICE

VOLUME I

PRINCIPLES OF ACCOUNTING

THIRD REVISED EDITION

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VOLUME III

ACCOUNTING APPLICATIONS TO VARIOUS FORMS OF BUSINESS AND INDUSTRY

ACCOUNTING THEORY AND PRACTICE

PRINCIPLES OF ACCOUNTING

By

ROY B. KESTER, PH.D.

CERTIFIED PUBLIC ACCOUNTANT; PROFESSOR OF ACCOUNTING,
SCHOOL OF BUSINESS, COLUMBIA UNIVERSITY

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ROY B. KESTER, PH.D., *Editor*

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To My Mother

IN APPRECIATION OF HER STEADFAST

INTEREST IN MY WORK

PREFACE

Any field of study dealing with human activities is subject to constant development and change. On this characteristic, its attractiveness as a field of study and its usefulness in the affairs of mankind largely depend. Accounting is such a field mainly because the type of service which it furnishes to business is constantly enlarging. It becomes necessary, therefore, periodically to revise any statement of the principles of the subject. While the basis on which those principles rest does not change, their use in the service of business does change. This necessitates changed ideas as to the specific content of an introductory treatise. Besides, a pedagogue's methods of the organization, development, and presentation of his subject matter are also undergoing change in the light of classroom experience. Good pedagogy should strive always for better, simpler, and more efficient methods of presentation, so that with the same effort on the part of the learner a more thorough understanding of fundamentals and a broader knowledge of their application may be secured. To what extent this is true of accounting texts becomes very evident, after only a brief survey of those issued within the past twenty years. For these various reasons, therefore, this revision has been made.

The content of a first course in accounting must have in view two classes of readers: (1) those who desire such a knowledge of the subject as is needed by all business executives; and (2) those who desire to follow accounting professionally either in the public field or in private practice. There is also a third group, viz., those looking forward to professional careers in law, journalism, architecture, and the various engineering fields, who increasingly appreciate the value of accounting as a part of their training, because, touching closely all of the functional activities and departments of business, it provides an understanding of those activities and supplies a tool of analysis which gives them the true significance and meaning of the figure data of business—their own and others. This is particularly important in law and engi-

neering where the business or economic aspects of the major part of their work must always be held in view.

For the first class of readers—and the largest—a knowledge of accounting should provide two things: (1) an ability to use accounting analysis and interpretation in their own particular fields of work, and (2) a knowledge of the type of service reasonably to be expected and demanded of the accounting department of any business. For the second class of readers, the first course in accounting should provide a brief view of the professional field, of the various accounting services, a thorough knowledge of the basic structure of the science on which to build their future work, and reasonable facility in the application of principles to given situations. The emphasis is thus not on the mechanical features of the art, although a thorough understanding of them is absolutely necessary to a proper appraisal of accounting data, but always upon the analytic methods and interpretative processes of the science.

The material of the text has been so organized that the basic elements of the subject are presented in the first half of the book, Chapters 1–20, which thus provide a minimum course in the subject. Chapters 21–30 treat particularly of the applications of accounting in the partnership and corporate forms of business organization. Chapters 31–40 treat of the more usual applications of accounting in the management of the various functional departments of a business—procurement, marketing, finance, and general administration.

A considerable amount of new material has been added, particularly in the second half of the book, and all of the material has been reorganized, rearranged, and much of it rewritten. Some material in the old volume has been omitted.

For use with this third revised edition, adequate problem material is provided for a full year's work.

A pleasant part of the writing of a technical work is the opportunity afforded to express appreciation for the assistance and suggestion received. The author is indebted to many instructors who have used the book, and to all these he acknowledges his debt. Professor Alexander J. Lindsay of Denver University and Mr. D. M. Shonting of Ohio State University offered par-

ticularly helpful suggestions for the revision. Mr. John Jaffe of the College of the City of New York prepared the text for Chapter 38. To the members of his own staff who have taught *Principles of Accounting,* Miss Nina Miller and Messrs. Howell A. Inghram, Ralph T. Bickell, S. B. Koopman, F. W. Scholz, A. Russman, and W. Donald Jordan, he is under a particular debt of gratitude for help, suggestion, and encouragement.

Roy B. Kester

Columbia University,
New York City,
May 2, 1930.

CONTENTS

I—Basic Principles

II—Accounting and Forms of Business Organization

III—Accounting and Business Management

FORMS AND CHARTS

Accounting—Theory and Practice

CHAPTER 1

PROPERTY, PROPRIETORSHIP, AND PROFIT

Property.—The right to private ownership of property is almost universally recognized in modern economic society. It is one of the foundation stones on which such society has been builded. The outstanding characteristic of the present business era is the vast accumulation of property under single or group ownership. The desire for ownership of wealth or property furnishes a most powerful incentive to individual and group effort—not so much for its own sake as for the power, control, and mastery of economic forces and conditions which such ownership gives.

Property, in a broad sense, consists of practically all recognized forms of wealth. In the sense of private ownership, property comprises those forms of wealth the legal ownership of which vests in individuals or groups of individuals who control and use such wealth for private purposes. These individuals or groups are the agencies through which the business activities of society are carried on. They are termed business units.

The Business Unit.—Economic society has thus organized itself into numberless separate units or business organizations. These units are the means through which society operates, their ultimate purpose being the easy and efficient satisfaction of human economic wants. Individual business units, conducted as they are by members of society, are under the general supervision of society as a whole. This is evidenced everywhere by the laws, licenses, and regulations by which society attempts to control the activities of the individual for the larger interest of society as a whole. Although business is conducted in most parts of the world from a highly individualized standpoint, there is a growing tend-

ency for society to exercise a larger control and supervision over all types of individual activity, particularly with a view to conserving the welfare of its members. The business unit is thus the medium through which society works to satisfy its economic wants.

External Organization of the Business Unit.—From the standpoint of the relation of the business unit to economic society, the unit is organized under three main forms:

1. The individual or single proprietorship
2. The partnership
3. The corporation

The reader is familiar in a general way with these types of organization. Their detailed characteristics are treated in Chapters 21 to 30, inclusive. Brief reference is made to some of their proprietary characteristics in Chapter 2.

Internal Organization of the Business Unit.—Society early found that only by means of a highly specialized division of its activities was it possible to satisfy without waste its rapidly increasing economic wants. Individual business units are thus organized for the purpose of carrying on some one or more of these greatly subdivided activities. Within itself the business unit is organized into departments or divisions for the efficient and orderly handling of its work. The two large divisions in any business undertaking have to do with what the economist calls the production and exchange of wealth, that is, commodities, services, and so forth. In carrying on these activities of production and exchange, it has usually been found desirable to segregate into separate departments certain major functions which are common both to production and to exchange. What the major departments may be depends very largely upon the size of the business unit, its relative complexity of organization, and to some extent on the individual ideas of its managers. Throughout the business world one notes, however, a quite general departmentization under the following heads:

1. Finance
2. Procurement or production
3. Marketing or distribution
4. Personnel
5. General administration

There are two main activities under the control of the finance division of a business: (a) the problem of original investment, including that of location and acquisition of a plant suitable for the conduct of a contemplated business; and (b) the problem of operating finance, that is, of providing the business with a fund of working capital for its efficient operation. The financing of purchases, sales, credits, operating expenses, and so forth, comprises a large part of the work of finance of an operating or going concern.

In the second of the major departments, that of procurement or production, one finds these activities: (a) the purchasing of the stock-in-trade to be dealt in, if the concern is a trading business; or (b) the manufacture of the stock-in-trade, if the concern is a manufacturing business. In this latter case, suitable sources of raw materials must be discovered, an efficient labor force must be organized, and all other manufacturing agencies, such as plant, equipment, and supervisory forces, must be provided.

In the department of marketing or distribution, the following activities center: (a) those having for their purpose the creation of a market or demand for the commodity dealt in—the sales organization, the advertising activities, and so forth; (b) the actual selling of the commodity; and (c) the transportation and delivery of the product.

In the personnel department are included the human relations between employer and employee. The hiring and training of the employee, his classification and rating, his welfare and promotion, are the major activities here.

The function of the department of general administration is, in the main, that of supervision and management of the business as a whole. The general manager must have a view of all of the activities of the business. He must see that the various departments through which its activities are carried on are properly correlated, that it is so organized that its departments function smoothly and efficiently in the performance of their several duties. A consideration of the means employed by the general manager for the proper performance of his duty indicates the place of accounting in the business unit.

Records and Their Functions.—As far back as our knowledge reaches, records of some sort have been kept and used and they have frequently formed the basis on which our knowledge rests. In a broad sense, a record may be defined as a written memorial, a register or history of events, a testimony. Even though the desire to make and hand on to the future a record of achievement is a deep-seated characteristic, record-making has seldom been an end in itself. Knowledge of what has been done has always been a starting point and a guide for future achievement. The longhand or narrative record is indispensable in some fields of knowledge; the shorthand or statistical record is equally necessary in others. The statistical method and accounting are, without question, most potent agencies for the advancement of human knowledge and for the control of human relationships. They provide the basis in fact on which judgments must largely rest.

Place of Accounting in Business.—In a small business where the owner and manager is in close and intimate contact with these several departments, or perhaps where he focuses all of them within himself, he has no need of special means of keeping himself informed concerning the activities of his assistants, nor does he require an elaborate system of records to indicate the condition and state of the business at any time. In large businesses, however, where the volume and complexity of the commercial activities make it impossible for the executive, on whom rest the responsibilities for the successful conduct of the business, to have an intimate personal knowledge of all phases of the business, it is very necessary that some means be employed for supplying him with this vital information. Two types of information are necessary to him: (1) information about the business unit itself, its activities and condition; and (2) information about general economic conditions in the country, and particularly about other businesses in the same line of activity as his own. It is the function of accounting to supply information of the first type; it is the chief purpose of statistics to supply information of the second type. The accounting department, therefore, deals largely with the internal activities of the business, while the statistical department provides knowledge of the external relations of the business.

A proper control and management of business affairs cannot be exercised without the information supplied by both departments. In the accomplishment of its function to supply the internal information, the accounting department reaches out into all of the main departments indicated above for data from which to make its record of the various activities of the business unit.

Purpose of Accounts.—Accounts record the business history of a concern. Their main purpose is to provide information concerning the results of business activity and endeavor. The record required for this purpose can be condensed and made very brief, although the full history of every business comprises a multitude of transactions with a great mass of details. The whole scheme and method of account-keeping are designed chiefly to collect the detail and use it mainly for building up a summary which will give in rapid review the entire record for the fiscal period.

Account-keeping is to the bookkeeper what shorthand is to the stenographer—an abbreviated method of making the record. The uses to which the records are put, however, differ radically. Stenography abbreviates the writing of the spoken word with a view to its transcription into longhand; accounting records business transactions in abbreviated form with a view to summarizing them further so as to secure a bird's-eye view of the operations of the business as a whole and to use it in the formulation of administrative judgments and policies.

In a large business there are executive duties within each of the five main departments. Accounting must supply the information on which each departmental executive will base his judgments and policies. The student will see, therefore, that the accounting department brings together a record of the activities of each of the main departments of a business. He will see, too, how the final output or product of the accounting department must be a summarization and interpretation of these departmental activities in order to provide a factual basis on which the various executives may formulate their judgments and business policies. Accounting is, therefore, a handmaiden of the executive in the conduct and management of the business.

It is the purpose of this volume to develop the technique of the bookkeeping and accounting record and to indicate some of its uses in the management of business. First, however, it will be well to indicate briefly the field of accounting as a profession.

The Field of Accounting.—Accountancy, the professional practice of accounting, has been defined as "a profession, the members of which . . . offer to the community their services in all matters having to do with the recording, verification, and presentation of facts involving the acquisition, production, conservation, and transfer of values." The recording of business transactions presupposes the installation of a suitable system of records from which can be secured readily all of the internal information necessary to the management of a business and to a knowledge of its condition at a given time. Hence, in the main the profession embraces the following lines of work:

1. The designing of suitable systems of business records.
2. The recording of business transactions.
3. The verification of the accuracy and correctness of the records—usually denominated the work of auditing.
4. The preparation and interpretation of reports and statements, made up from the records, for the purpose of showing the financial and operating condition of a business and thus providing the information needed for its proper management.

The public accountant—designated a certified public accountant and permitted to use the abbreviation, C. P. A., if he has satisfactorily passed the technical examination and has met the other requirements as to education, character, and experience set up by the various state examining boards—is one who offers his professional services to the business community at large. The private accountant limits his practice, for the most part, to the one business of which he is a regular employee.

Relation of Accountancy to Economics.—Economics is sometimes defined as the science of wealth, by which is meant a body of classified knowledge relating to wealth in the aggregate. Under the present-day political and social system, the ownership

of wealth is very largely private. Furthermore, the division of labor, as industry is now organized, has been carried to a very high degree. Because of these facts, the present elaborate organizations for producing wealth have given rise to an urgent need for some effective means of keeping record of their activities.

The effort of every individual engaged in industry is to increase wealth. He labors to extract the raw materials from nature, to shape and mold them so as to supply the wants of his fellowmen. He then distributes them by means of markets and exchanges so as to secure the greatest possible returns for his effort. As competition becomes keener and the margin of return per unit of product becomes smaller, he has to increase his volume of business to secure the same amount of profit as when he did a lesser volume of business.

To produce goods it is necessary to use the saved wealth of former periods to pay the expenses of materials, labor, management, etc., of the present period. One must consume wealth to produce wealth. After his product is made, he must seek the best market for its exchange or sale. This necessitates the use of a complex system of transportation and communication. Finally, during the whole process of production and exchange, the estimated returns from the article must be distributed among the several parties engaged in its creation. To make this distribution on the basis of estimated returns, gives rise to the need—the absolute necessity—of an accurate record of the costs of the activities and processes all along the line. The record, then, of the value of the rights and properties of the various parties to the production and distribution of wealth is the special function of Accountancy as related to Economics.

Relation of Accountancy to Law.—The determination of the rights of the several parties to the creation, exchange, and ultimate consumption of a product is the field of Law, more particularly Business Law. The determination by means of its records of the value and extent of these rights is the province of Accountancy as related to Law. Accountancy is thus seen to be the handmaiden of both Economics and Law. None of them can progress far without the help of the other two. All being related to, and

arising out of manifold human endeavors, their progress and development are dependent upon, and limited only by, the progress of these endeavors.

Proprietorship and Profit the Basic Problems of Accountancy.—The aim of all private businesses being the increase of wealth, the first problem of accountancy is to determine how much wealth is invested in a given enterprise and what ownership or proprietorship exists at given periods, so that by comparison the increases and decreases in the proprietorship may be known. When accurate information is obtained, an intelligent plan of action can be adopted to remedy such ills of the business as are shown and to increase any profitable line of activity. Accordingly, proprietorship and its changing values—i. e., profits and losses—are the basic problems of accountancy as well as of business.

Definition of Terms.—Before proceeding to a definition or determination of proprietorship, it is necessary to understand what is meant by the terms "assets" and "liabilities." The root idea of the word "assets" is "sufficiency." Specifically, assets are the "entire property of all sorts, of a person, association, or corporation applicable or subject to the payment of debts." Similarly, the liabilities of a person, firm, or corporation are his or its pecuniary obligations or debts. Proprietorship is the difference between the value of the assets and the amount of the liabilities, and is defined and measured by the equation:

$$\text{Assets} - \text{Liabilities} = \text{Proprietorship}$$

This proprietorship equation is a basic formula. It is also written:

$$\text{Assets} = \text{Liabilities} + \text{Proprietorship}$$

It will thus be seen that proprietorship represents the residual equity of the owners of an enterprise in its assets. The assets are first applied in paying the claims of creditors of the business, and whatever of them remains belongs to the owners of the business.

If, through the operation of a business, proprietorship increases, a profit is made. If proprietorship decreases, a loss is incurred. This statement must be modified if additional funds are invested

in the business or if funds are withdrawn. A full discussion of this matter will be found on page 37.

Development of the Proprietorship Equation—The Balance Sheet.—To indicate the basis of the standard form of the proprietorship equation, several illustrations will be given. The equation is in its simplest form when it indicates proprietorship in a new business immediately after the owner has invested cash to provide the business with capital. For example, assume that on January 1, 19—, George R. Baker starts business by investing $25,000 cash capital in the enterprise.

Here the proprietorship equation is:

Assets (cash $25,000) = Proprietorship ($25,000)

As yet there are no liabilities. However, in order to carry on his business, Baker must purchase a stock of merchandise and equipment for his store. Accordingly, he purchases store furniture and fixtures from Smith Brothers for $2,500, of which he pays $1,250 in cash, and owes the balance. He also buys a stock of groceries for $12,500 from Austin Nichols & Co. on 10 days' credit. He now has more assets than the original $25,000 cash, but he has become indebted for the additional amount, so that the amount of his proprietorship has not changed—as is shown by the following equation, somewhat more complex than the first:

Assets		—	*Liabilities*		=	*Proprietorship*
Cash	$23,750		Smith Bros. Claim.	$ 1,250		
Furniture	2,500		Austin Nichols			
Merchandise ...	12,500		Claim	12,500		
	$38,750	—		$13,750	=	$25,000

Baker now begins operations and after six months finds that his activities have comprised the purchase of delivery equipment for $5,000 cash; sale of goods amounting to $30,000; the payment of $5,000 cash for rent, clerk hire, advertising, etc.; and sundry purchases of stock-in-trade as needed. As a result he now has $10,000 cash on hand; customers owe him $8,000; his stock of goods still on hand is worth $10,500; he owes creditors $8,000 for goods bought and his clerks $500 for services rendered.

It is readily seen that as the number of assets and liabilities increases, the method of showing them used above becomes awkward and cumbersome. Therefore, still using the mathematics of the equation, we make the following vertical tabulation to determine and show proprietorship:

Assets		
Cash	$10,000.00	
Customers	8,000.00	
Merchandise	10,500.00	
Furniture	2,500.00	
Delivery Equipment	5,000.00	
Total Assets		$36,000.00
Liabilities		
Creditors for Merchandise	$ 8,000.00	
Clerks for Services	500.00	
Total Liabilities		8,500.00
Proprietorship		
Capital		$27,500.00

This form of expressing the proprietorship equation is called a "Balance Sheet," or "Financial Statement."

A comparison of Baker's proprietorship at the beginning of the six-month period (viz., $25,000) with its amount at the end of the period (i. e., $27,500) indicates that a profit of $2,500 has been made during that time. In order the better to indicate in the balance sheet the profitable outcome of the business, the Proprietorship section should be expanded to show as follows:

Proprietorship		
Original Capital	$25,000.00	
Add: Profit for the six-month period	2,500.00	
Total Proprietorship		$27,500.00

In this way additional interesting and vital information is presented.

Further analysis of the above information discloses the amount of Baker's purchases and of his payments to creditors. Taking the transactions involving cash, we find that he had $25,000 to

start with and received $22,000 from sales, or $47,000 in all. He bought furniture and delivery equipment for $7,500, and paid expenses of $5,000, in all $12,500. There is, therefore, a balance of $34,500 to be accounted for. Cash $10,000 is still on hand, so that he must have paid creditors $24,500. Since he still owes creditors $8,000 for goods bought, his purchases must have been in all $32,500.

Total goods bought thus amounted to $32,500. Of these, however, $10,500 were still on hand unsold at the end of six months' operation. The cost of the goods he sold must have been $22,000, i. e., $32,500 – $10,500. Since he sold these goods for $30,000, his profit on sales amounted to $8,000. When from this profit is deducted the cost of operating his business amounting to $5,500 (of which $5,000 was paid in cash and $500 is still owed), there remains a net profit for the six-month period of $2,500. It will be noted that this is the amount of the increase in proprietorship as shown by the balance sheet.

The ability to make accounting statements and to analyze accounting data for various purposes constitutes a very important part of the equipment of the accountant.

Value of a Knowledge of Accounting.—Before proceeding with the technical study of accounting, it may be well to point out briefly its value to the reader or student not interested in following accounting as a vocation. Reference has already been made to the dependence of the business executive on the information furnished him by the accounting records. To be fully cognizant of the kind of statistical and other information with which he may reasonably expect to be furnished by the accounting department of the business, every executive should have a knowledge of the accounting process. To be able to interpret that information and to evaluate it properly, he should know how it has been built up, the sources of the data and the method of summarization. Without this he is not properly equipped to make intelligent decisions nor to formulate proper policies. Furthermore, because the accounting department touches and makes a record of the activities of practically every department in a business, the prospective executive who enters the business by way of the accounting depart-

ment acquires a better general knowledge of the business and in a less time than can usually be acquired in any other way. It is for this reason that the accounting route has so often been a stepping stone for higher executive positions.

Accounting work is largely of an analytical character. The analysis of business transactions to determine their basic relationships, the summarization and compilation of figure data and their interpretation—all develop a mental attitude and equipment invaluable to any executive regardless of the department or division of business in which his activities are centered.

To be able to handle his own business affairs intelligently, every one, whether or not actively engaged in business, should be equipped with a basic knowledge and appreciation of accounting.

CHAPTER 2

ASSETS, LIABILITIES, AND CAPITAL

Before discussing the form and content of the balance sheet and some of its major uses, the chief kinds of assets, liabilities, and proprietorship will be explained so that the student will have an intelligent notion of what is meant by each asset, liability, and proprietorship item.

Kinds of Assets.—Accounting terms are not wholly standard. An account title is often used in one business to include items not mentioned under that title in another business. One finds also terms and titles peculiar to particular businesses. However, there is a marked tendency toward a standardization of the terms used in balance sheets. It is the purpose here to present and explain those which are common to practically all businesses. These include the asset titles, Cash, Notes Receivable, Accounts Receivable, Merchandise, Investments, Accrued Income, Prepaid Expenses or Expense Assets, Furniture and Fixtures, Delivery Equipment, Machinery and Tools, Buildings, and Land.

Cash. Cash includes all kinds of money and usually whatever serves as a medium of exchange, which is in the possession or control of the business unit—deposits in banks, moneys in the safe and cash drawers, and usually also funds in the possession of agents. Checks received in the regular course of business and not yet deposited in the bank are usually classified as cash.

Notes Receivable. The formal promises to pay, made by others in acknowledgment of debts owed the business, are classified under the general title, Notes Receivable. Time drafts drawn on the debtors of the business and accepted by them may be included under this title, although they are sometimes shown under a separate title, such as Acceptances Receivable. This is particularly true when the acceptances are trade acceptances. It will

be seen later that the promissory note has a somewhat different legal status from the open account claim against a debtor, and should therefore be classified under such title as will indicate the exact nature of the item.

Accounts Receivable. These usually represent the claims of the business against its trade customers for goods sold on open account and not paid for. An individual record or account is kept with each customer. The balance sheet title, Accounts Receivable, is a summary title. It represents the total of all individual customers' accounts. The term is, however, broader than this, being sometimes used—although the practice is to be deplored—to include claims against all kinds of debtors except those which are in the form of notes.

Merchandise or Merchandise Inventory. This asset represents the stock-in-trade in which the business deals. It is, of course, a sort of revolving asset, that is, merchandise is purchased and sold continuously, so that the stock-in-trade is constantly being turned over. The rate of turnover is very important, as will later be seen. In a manufacturing business this asset is usually listed under three subtitles, viz., Finished Goods, Goods in Process, and Raw Materials.

Investments. This asset represents the securities owned by the business. These usually consist of stocks and bonds issued by other companies, governments, municipalities, school districts, and so forth. Because of the seasonal nature of many businesses, there are usually some periods of the year when cash funds increase beyond the normal requirements of the business. These funds would lie idle in the bank unless they were invested in securities of some sort. These securities usually can be easily reconverted into cash when the business requires a larger fund of cash for purposes of operation.

Accrued Income. This is the title under which are listed the assets representing the claims against others for income earned to date but not yet due and collectible either because of the terms of the contract governing or because of trade custom or practice. Thus, Interest Income Accrued represents the interest earned since the date of the last collection of interest on moneys loaned. The

contract may provide that interest is to be paid by the borrower at the end of each six months' period. For money loaned on March 1, interest would, therefore, be payable September 1 and March 1 each year. Inasmuch as interest accrues day by day, at intervening periods there would be an accumulation of earned interest, not yet collectible however. The item is a kind of account receivable.

PREPAID EXPENSES. Certain types of expenditure are necessary in every business to provide operating supplies. Fuel must be purchased for heating and power purposes; brooms, oil, waste, and other similar supplies are needed for cleaning and maintaining the business plant; stationery, stamps, wrapping paper, twine, cartons, packing materials, and so forth must always be on hand; insurance policies giving protection against fire are usually purchased for periods of from one to three years and so are seldom completely used up at any given date. All items of this sort, necessary for the operation of the business but not dealt in as stock-in-trade, are called "expense assets." The portions of these assets on hand at a given time and which will be used in a later period, are classified as "prepaid expenses."

FURNITURE AND FIXTURES. A business plant must be equipped with furniture and fixtures suitable for the display of the stock-in-trade, for the accommodation of customers, for the care and protection of the necessary records of the business, for the efficient performance of duties by the employees, and for other similar purposes. Assets of this type which are not a permanent part of the business building but are removable should the business desire to change location, are listed under the title, Furniture and Fixtures. This may be subdivided to suit conditions. Sometimes several titles—Store Furniture and Fixtures, Office Furniture and Fixtures, Factory Furniture and Fixtures, Warehouse Furniture and Fixtures—are used.

MACHINERY AND TOOLS. Many businesses, especially those which manufacture their own stock-in-trade, are equipped with machines and tools for this purpose. All of these are listed together on the balance sheet under the title, Machinery and Tools. For purposes of information needed within the business, a more

detailed record may be kept. Here the machines and tools may be grouped and the record kept by kinds or types of machines.

DELIVERY EQUIPMENT. If a business delivers its commodities, it will usually have its own delivery equipment. This may comprise horses, wagons, harness, automobile trucks, and so forth. The delivery equipment may be used for both inbound and outbound deliveries.

BUILDINGS. All buildings owned by the business, whether used for business purposes or not, will usually be classified on the balance sheet under the asset title, Buildings. Store, office, factory, warehouses, residences owned and rented to employees—all assets of this type are to be listed here.

LAND. This item represents land—city lots, plant sites, and so forth—owned in fee simple or subject to mortgage. Sometimes when a plot of land is leased for a term of years and a lump sum payment made at the beginning of the lease, the asset may be included either under the title, Land, or preferably under the broader title, Land and Leaseholds, or merely Leaseholds, as the case may be.

Kinds of Liabilities.—Just as with assets, there is not entire uniformity in terminology for the various classes of liabilities. The more common types of items met with are: Notes Payable, Accounts Payable, Accrued Expenses, Mortgages Payable, Bonds Payable, and so forth.

NOTES PAYABLE. These represent the formal promises to pay, signed by the business or its owners. They represent the formal claims of others—that is, creditors—against the business. Just as with notes receivable, it is sometimes desirable to make a more distinct classification of notes payable. In such cases the titles, Acceptances Payable, Trade Acceptances Payable, Long-Term Notes Payable, etc., are used.

ACCOUNTS PAYABLE. Under this title are listed the liabilities to creditors on open account, as distinguished from those formally acknowledged by a written promise to pay. These include obligations to trade creditors for merchandise, supplies, equipment, and property of almost any kind purchased for use by the business.

In a broad sense, an account payable includes any open account claim for which the business is liable.

Accrued Expenses. Accrued Expenses represent usually the accumulating but unpaid claims against the business for service rendered it, as distinguished from the Accounts Payable, which usually represent purchases of an asset of one kind or another. The item arises largely because of certain trade practices and customs in accordance with which some kinds of debts are payable periodically. The worker and the clerk are not usually paid each day for their services, but weekly, bi-weekly, or monthly. It is not usual that the date of the balance sheet coincides with the date of the payroll. Accordingly at the date of the balance sheet, there are usually accumulated items of this kind not yet due according to trade practice but which nevertheless are true debts of the business. Thus the amounts due at a given time to employees for work done since the last date of payment of their wages, salaries, or commissions, to the landowner for the rent of leased premises, to lenders for interest on moneys borrowed, are items properly to be included under this title. These must be listed with the liabilities in order to make a full and true showing of financial condition.

Mortgages Payable. These represent the claims of creditors against particular properties owned by the business but against which the creditors have been given a lien or preferred claim as security for the borrowed or unpaid amount. Mortgages are evidenced by a formal legal document and are usually recorded in the county clerk's office.

Bonds Payable. These usually are a type of long-term mortgage which is split into lots of more or less standard amount and so made available to a larger number of holders than is usually the case with the ordinary mortgage payable. This type of liability is limited almost exclusively to corporations.

The student should realize that usually the owner or owners of a business enterprise have both assets and liabilities other than those employed in a particular business. Each business undertaking in which an individual is interested will have its own assets and liabilities so that its own proprietorship or net worth may be

known apart from the other undertakings. These other properties and obligations of the owner are to be considered only in showing the *total* proprietorship of any individual owner, when of course all of his properties, both inside and outside of the business, must be listed.

Kinds of Proprietorship.—Proprietorship, called also Net Worth, is shown under such titles as Capital, Investment, Capital Stock, Surplus, Undivided Profits, Reserves, and so forth. The title used depends largely on the type of organization under which the business is operated.

CAPITAL. Under this title is shown the amount of the proprietary interest of each owner in a single proprietorship or partnership business at a given time. To show each owner's share in the ownership, the title, Capital, is preceded by his name. Illustration of this is given on pages 22 and 23.

INVESTMENT. This title usually is synonymous with capital. Sometimes it is used to indicate the amount of original investment in the business as distinguished from the present investment. This should not be confused with the asset title, Investments.

CAPITAL STOCK. By the capital stock of a corporation is usually meant the value and number of the shares of stock which the company under the charter granted it by the State is authorized to issue. By the term, Capital Stock, as used in a balance sheet, however, is meant the amount of the authorized stock which has been issued at a particular time. It is, therefore, the sum total of the portions of net worth owned by the shareholders of a corporation and evidenced by stock certificates which are subject to individual control. On page 24 is given an explanation of the way in which the proprietorship or net worth of a corporation may be composed of two (or more) parts: (1) the capital paid in by the owners; and (2) the capital, representing profits made but not distributed to the owners. While capital stock usually represents the capital contributed by the owners, it sometimes arises from other sources, such as the distribution of a stock dividend. Whatever its origin, the capital stock of a corporation is the portion of the net worth owned and controlled *individually* by the owners,

as distinguished from the portion which, although belonging to the shareholders, is controlled and administered by the corporation, usually through a board of directors.

SURPLUS. In a corporation this represents the second portion of the net worth, as indicated in the preceding section. Surplus is sometimes defined as the excess of the net worth over the capital stock. In other words, it is the difference between the assets and the sum of the liabilities and the capital stock.

UNDIVIDED PROFITS. This is a term used chiefly in financial institutions to indicate the portion of the net profits left in the business concerning the disposal of which no action has been taken. By action of the board of directors it may be distributed as dividends to the owners, or it may be left in the business and become a part of the surplus.

RESERVES. Under this title are included whatever portions of the surplus are set aside or reserved for specific purposes, such as for financing the redemption of a long-term debt when it comes due. This is frequently called a Sinking Fund Reserve.

Where Surplus, Undivided Profits, and Reserves appear as parts of Net Worth, they together represent the difference between Net Worth and Capital Stock. The reason for the careful segregation of these items from the Capital Stock is given in the explanation of the corporate form of organization, on page 23.

Types of Business Organization.—Before proceeding with a discussion of proprietorship as it appears on the balance sheet, the three general types of business organization will be treated briefly, because the manner of indicating proprietorship is dependent to a certain extent on the type of organization. These types are: (1) the single or sole proprietorship, (2) the partnership, and (3) the corporation.

The Single Proprietorship.—The simplest form of business enterprise is that conducted by a single proprietor. This form is well adapted to businesses where the capital necessary for efficient production is small, where the processes are simple and capable of being handled by the average individual, and where the risks

are slight. Very few legal obstacles are placed in the way of the individual desiring to go into business for himself, nor is a great deal required of him. In some cases registration and a license are necessary. The observance of the general laws concerning the payment of taxes and of local regulations concerning disease and fire is all that is usually expected. Subject to the general restrictions which ordinary business acumen and foresight impose, one can enter practically any field of enterprise as a single proprietor, can have entire freedom and privacy in the conduct of his business, and need share with none the results of his endeavor.

On the other hand, these conditions oftentimes prove to be decided disadvantages. As industry is at present organized, many fields of activity demanding large capital and many kinds of technical knowledge, are closed to the single proprietor. Freedom of action carries with it sole responsibility, and oftentimes the counsel and advice of others would prevent the disasters which sometimes overtake the single owner of a business.

The Partnership.—A partnership is "a contract of two or more legally competent persons to combine their money, property, skill, and labor, or some or all of them, for the prosecution of some lawful business and to divide the profits and bear the losses in certain proportions." There are different kinds of partnerships, as will later be shown, but the essence of each from the point of view of a working organization is mutual agency, each partner being the agent of the others, and, within the limitations of the partnership agreement, capable of acting as a principal for the firm. The partnership is subject to practically as few restrictions as the individual. In some localities, to secure the right to sue and be sued in the firm name, it is necessary to file in a public office a brief statement of the firm name and the names of its members.

The chief advantages of the partnership are larger capital and therefore access to fields closed to the individual; the combining of the business wisdom, skill, and knowledge of several individuals; the subdivision of duties and therefore the opportunity for specialization. While in the view of the business community the partnership is an entity or a business unit, it is not so in the sight of the law, each member of the firm being held liable to creditors

for the entire debts of the partnership as if it were his sole business. If any one member has to pay the firm debts, he has a claim against his copartners for their respective shares of the debts.

Some of the disadvantages of this type of organization are the possibility of friction among the partners and consequent delay of action; the extension to the firm of credit based not on the firm property but rather on the total property of the members, and the consequent liability of each partner and his entire private fortune for the debts of the firm.

It is important to note that the partnership agreement should be very carefully drawn to cover in detail the relations of the partners, their duties and their rights, particularly as to their shares in the profits or losses of the firm.

The Corporation.—When properly organized and authorized by the State to do business, a corporation is a *legal* person distinct and apart from its individual owners. This type of business organization is distinguished from the other types discussed:

1. By the freedom of each owner from the personal liability for the debts of the business to any greater extent than his stock interest in the business, though frequently in financial corporations, and in a few states for all corporations, his liability is double that stated.
2. By the legal provision that—except in certain kinds of corporations—the originally contributed capital cannot be withdrawn by the owners. Only profits are subject to withdrawal.
3. By each share of ownership being evidenced by a formal document called a certificate of stock.
4. By each owner being allowed a voice in the affairs of the business only to the extent of his stock ownership therein.
5. By the necessity of securing from the proper authorities permission to do business.
6. By the necessity of complying strictly with the terms of this permit and submitting to certain requirements such as the filing of annual reports, payment of special taxes, and the like.

The owners of a corporation, or its stockholders as they are called, conduct the business through a board of directors which they elect for that purpose and they review its management periodically, usually annually. In this way they exercise indirect supervision over the business. This remoteness of personal interest and supervision has been somewhat overcome by electing to the board only those largely interested in the business, and by retaining on the board those whose ability as managers has been tried and proved. The board usually hires and delegates to others the active management of affairs.

The advantages of the corporate form of organization are: (1) it limits the liability of its owners; (2) it lends itself well to accumulation of the large funds of capital necessary for the promotion of large-scale enterprises; and (3) it secures through its board of directors a convenient and effective means of centralized control and management.

Showing the Proprietorship of These Types.—The methods of showing in the balance sheet the proprietorship for these three types of organization differ somewhat. The title under which proprietorship is listed is Capital. In a single proprietorship such title is preceded by the proprietor's name, as shown in the following illustration:

Assets		
Cash	$2,000.00	
Accounts Receivable	5,000.00	
Merchandise	3,000.00	
Furniture and Fixtures	500.00	
Total Assets		$10,500.00
Liabilities		
Accounts Payable	$4,450.00	
Accrued Expenses	50.00	
Total Liabilities		4,500.00
Proprietorship		
James Runyon, Original Capital	$5,000.00	
Profit for the period	1,000.00	
Total Proprietorship		$6,000.00

In a partnership the capital is not shown in one item, each partner's interest being stated separately, thus:

Assets

Cash	$ 2,500.00	
Accounts Receivable	10,250.00	
Merchandise	8,750.00	
Furniture and Fixtures	625.00	
Total Assets		$22,125.00

Liabilities

Notes Payable	$ 1,660.00	
Accounts Payable	5,465.00	
Total Liabilities		7,125.00

Proprietorship

James Runyon, Original Capital	$6,500.00		
One-half share of profit for the period	1,500.00	$ 8,000.00	
Philip Adams, Original Capital	$5,500.00		
One-half share of profit for the period	1,500.00	7,000.00	
Total Proprietorship			$15,000.00

In a corporation, proprietorship is shown by the aggregate of the outstanding shares of stock, which are usually valued at a fixed par, or at cost, under the single title, Capital Stock, and if the proprietorship is greater than that indicated under this title, the excess is listed separately under the title, Surplus, or some of the other proprietorship titles already explained. This method of showing proprietorship is prescribed by law and is an effort to inform creditors, or those who may become creditors, that the corporation has observed the legal requirement not to pay back to stockholders any of its original capital. Hence, the capital stock of the corporation must be listed separately from the other items of proprietorship. Any changes in proprietorship during the life of the corporation are taken care of under these other titles, somewhat as illustrated below.

Assets

Cash	$ 1,850.48	
Notes Receivable	1,645.65	
Accounts Receivable	15,285.35	
Merchandise	10,045.94	
Supplies	1,145.37	
Furniture and Fixtures	1,636.97	
Delivery Equipment	1,427.50	
Buildings	8,000.00	
Land	2,000.00	
Total Assets		$43,037.26

Liabilities

Notes Payable	$ 4,250.00	
Accounts Payable	5,762.26	
Accrued Expenses	25.00	
Mortgage on Land and Buildings	3,000.00	
Total Liabilities		13,037.26

Proprietorship

Capital Stock		$25,000.00	
Surplus beginning of period	$1,000.00		
Profit for period	4,000.00	5,000.00	
Total Proprietorship			$30,000.00

CHAPTER 3

THE BALANCE SHEET

Purpose and Use.—The balance sheet of a business is designed to show its financial condition at a given date. While information as to the net worth or proprietorship of a business is valuable, something more than that is needed to determine its financial condition. From the viewpoint of a prospective investor or purchaser, of a banker to whom the business has applied for a loan, or of a concern considering the advisability of extending it credit on a bill of goods, it is valuable to know that a business has a net worth of, say, \$10,000; but it makes a big difference in judgment of financial condition to know whether that net worth results from assets of \$15,000 and liabilities of \$5,000, or whether its assets are, say, \$260,000 and its liabilities \$250,000. While a knowledge of the relative amounts of total assets and total liabilities is important, the *character* of the assets and liabilities is of far greater importance.

Thus to serve as a basis for determining financial condition, a balance sheet must show assets, liabilities, and net worth; and a *good* balance sheet is one which shows not merely the total amount of each of these groups but lists somewhat in detail the items composing them so that the nature and quality of each can be judged. If the assets are in properties for which there is not a ready market and the liabilities are claims which mature soon and will have to be met, the situation is unfavorable. If there are large values invested in easily salable assets; if there is a large balance of cash on hand after meeting current claims and providing for those which will soon mature; if other liabilities are of a more permanent nature, such as mortgages or long-time notes not requiring immediate attention—the situation from the standpoint of the ability of the business to pay its debts as they mature may be very favorable, but even here there may be an unfavorable factor

so far as the internal management of the business is concerned. The situation may show evidence of too large a capital or of inefficient management as indicated by the failure to invest a part of the surplus cash in properties from which some return might be secured. Questions of this kind are not usually capable of definite answer from the information contained on the balance sheet alone. Oftentimes, information as to the volume of business done, future plans for expansion or contraction of business operations, and so forth, is needed in addition to that supplied by the balance sheet. What is meant by the phrase, "financial condition of a business," and how this may be judged from the balance sheet will become clearer as our study progresses.

Form and Content.—In connection with the use of a balance sheet, some questions as to the manner of its make-up are important. Here two main problems are met:

1. That relating to the form of the balance sheet.
2. That concerned with its content.

By form of the balance sheet is meant its physical appearance—the arrangement and classification of its items. The form is not entirely standard at the present time, although tending to become so. In this country there are few legal regulations governing the way in which the records of a business are to be kept or its reports are to be made. Some efforts have been made, however, to establish a more or less standard form of balance sheet and to secure the use of standard titles in the balance sheet so that wherever found those titles can be relied upon to mean one and only one thing. Because balance sheets are not always drawn up for similar purposes, such regulations should not be too inflexible. The form of any business statement or report should always have regard to the purposes it is to serve. Standardization of form is desirable within this limitation.

By content of the balance sheet is meant the items that are admitted to it and the basis of their valuation.

These two problems of the balance sheet—form and content—are fundamental and will be briefly considered here.

Titles—Main and Group.—Instead of "Balance Sheet," other terms are used as names for the statement itself, such as "Financial Statement," "Statement of Resources and Liabilities," "Statement of Assets and Liabilities." Within the statement, Resources is an alternative title for Assets; and Net Worth, Capital, and Net Assets, for Proprietorship. For the present, use of the terminology previously employed will be continued, except for the group title, Proprietorship, for which the term, Net Worth, will be substituted.

The main title of a statement should be full; it should include the name of the business enterprise and date, and should appear somewhat as follows:

Shongood & Goodwell
Balance Sheet
December 31, 19—

As stated, this should be followed by the schedules of Assets, Liabilities, and Net Worth. Since the statement is a formal one, due regard should be had for its general appearance, which should be neat and attractive. Further consideration will be given to some of these features in Chapter 20.

Classification and Arrangement.—The main purpose of the balance sheet is to picture the financial condition of a business at a given time. Some of the questions which arise in determining the financial condition of a business have already been mentioned. The chief use to which a balance sheet is put is in connection with securing credit from the banks or from the seller of merchandise. Before granting an application for credit, the prospective creditor must attempt to determine the solvency of the business of the applicant. By solvency is meant the ability of the business to pay its debts when due. Regardless of how great the excess of assets over liabilities is, if it is tied up in assets which cannot be used for the payment of debts, the creditors of the business will become impatient and may ask a court to take the control of the business away from its owners and place it in the hands of a representative of the court and the creditors, who will conduct the business for the purpose of converting assets into cash to a sufficient extent to pay all debts.

The items on the balance sheet should, therefore, be so arranged that the condition of the business, viewed from the standpoint of its ability to pay its debts, will be clearly and easily determinable. Cash is usually the only medium available for the payment of debts. In the regular course of business, debts are incurred which come due at different dates. Hence, it is not necessary to have on hand at a given time cash sufficient to pay all of the debts of the business. Certain classes of debts, however, will not wait. The sums owed employees for services must usually be paid when due. The debt to the government for taxes, to the public service company for heat, light, and power, to the landlord for rent—all these debts must usually be paid immediately as they come due.

The cycle of business operation includes the purchase of merchandise, the payment of operating expenses, and the conversion of merchandise into cash through sale, either directly, as when the sale is for cash, or indirectly as when credit is extended a customer and cash is later collected from him. This cycle or turnover of merchandise recurs constantly in the management of the financial affairs of a business. It is necessary so to order the buying and selling of goods and the collection of accounts from customers that there will be on hand at all times sufficient cash to pay the expenses of operating the business and the debts contracted in the purchase of merchandise. This is the vital and fundamental problem of the business executive. In the solution of that problem it may sometimes be necessary to borrow funds from the bank. Before lending money, the banker assures himself that the business will be in a position to repay the borrowed money when due.

The balance sheet, accordingly, should be so arranged that the condition of the business as related to its ability to pay its debts will be apparent. This requires a classification or marshaling of the assets which are concerned in the trading cycle on the one side, and the liabilities which must be assumed in conducting the business during the trading cycle, on the other.

Current Assets and Liabilities. At the head of the list of these assets is the item, Cash, the most liquid of all, as it can be used directly for the payment of debts. Following Cash come in order: Notes Receivable, which, with proper indorsement, can

be sold to the banker and converted into cash almost immediately; Accounts Receivable, which represent the claims against customers for merchandise sold and which are collectible within the term of credit extended to the customer; and finally, the Merchandise on hand, which must be sold either for cash or on credit and then converted into cash by the collection of the outstanding accounts. Sometimes, also, there is included in this group the asset, Investments, representing stocks and bonds of other companies purchased out of a more or less temporary surplus of cash funds and which can, if needed, be readily reconverted into cash by sale on a stock exchange. On such securities, and also on the notes receivable, there is usually at the date of the balance sheet some interest which has accrued and may not yet be collectible. It is customary to include the amount of this interest receivable in the same group with the assets from which it arises.

This group of assets, arising out of the trading cycle, comprises at least the items, Cash, Notes and Accounts Receivable, and Merchandise, and is called the group of Current Assets. Other asset items, such as Investments, Accrued Income, and so forth, may be classified as current if conversion into cash is reasonably expected within three to six months. All these are the assets to which the current creditors of the business will have to look for the payment of their claims.

The claims of current creditors are usually included under the titles, Notes Payable, Accounts Payable, and Accrued or Unpaid Expenses. The classification of a creditor in the current liability group is usually determined on a time basis. Thus, all debts that will have to be met within six months' or one year's time from the date of the balance sheet are usually classed as Current Liabilities.

Working Capital. The excess of current assets over current liabilities is called the working capital of the business; that is, an amount of the current assets equal to the current liabilities will have to be used for the payment of these debts, leaving the excess or difference free for use within the business. While it is not possible to determine, without considering all the circumstances in a given case, how large this working capital should be, the standard rule-of-thumb is that it should at least equal the amount

of the current liabilities. It will thus be seen that the standard ratio of current assets to current liabilities is two to one. One of the tests of the solvency of a given business is always a comparison of the current asset group with the current liability group.

PREPAID EXPENSES. The content of this item was explained on page 15. Thus, if a management has paid some of its expense bills in advance—rent for January paid during December, for example—when showing its financial condition as at the end of December it is proper and necessary, in order to make an accurate showing, that all such prepaid expenses be listed as assets; for, had the payment not been made until the service which it purchased had been used up, the asset cash would have been larger by the amount of the prepaid expenses.

Similarly, with regard to the Accrued Expenses mentioned on page 17, whatever expenses have been incurred that properly belong to the past period, such as wages due but unpaid, are liabilities; for the cash would be smaller by the amount of such postponed or accrued items had the claims been met during the period. The close relationship of both prepaid expenses and accrued expenses to cash is thus apparent—the one as an indirect addition to the cash, the other as an indirect deduction from or claim against cash. Prepaid expenses may with good reason, therefore, be shown on the balance sheet under the group of current assets, whereas accrued expenses are listed with the current liabilities as noted above. In many balance sheets, however, these prepaid items are shown in a group by themselves under the group title, Prepaid Expenses, or Deferred Charges.

FIXED ASSETS AND LIABILITIES. The next group of assets is called Fixed Assets. Under this title are listed those assets which are used for carrying on the business but are not bought for the purpose of being resold. A certain amount of capital must be invested in the physical business plant. Furniture and fixtures, delivery equipment, buildings, land, machinery and tools, and so forth, must be purchased before the business can commence operating. It is assets of this type that comprise the class of fixed assets. There is a corresponding group among the liabilities which is known as Fixed or Long-Term Liabilities. All debts matur-

ing one year or more after the date of the balance sheet are classed as fixed liabilities. As examples of this class, we have long-term notes payable, mortgages payable, bonds payable, and so forth.

The difference between the fixed assets and the fixed liabilities indicates the amount of owner's capital which has been invested in the business plant.

Other Assets and Liabilities. The final group of assets is called simply "Other Assets," and includes all assets which cannot be classified in any other groups, such as goodwill, patents, trade-marks, accounts and notes receivable having a credit term longer than six months, and other similar items. If there are any liabilities not capable of classification in the two groups of liabilities given above, they may be put in a group called "Other Liabilities."

Showing the Amounts. For the purpose of an easy showing of these various groups and their titles, it is customary to list the amounts of the several detailed items of each group in an inner money column, and to extend the total into the adjoining money column on the line of the last item in the group. A similar arrangement is made of the groups of liabilities so that not only the items in the various groups but the group totals as well are available. The sum of the various group totals gives the grand totals for the assets and the liabilities respectively.

The balance sheet as now classified and arranged provides first a formal title, giving the name of the business and the date of the balance sheet; then the assets, under which appear the groups Current Assets, Fixed Assets, and Other Assets; and then the liabilities which are listed as Current Liabilities, Fixed Liabilities, and Other Liabilities. The showing of Proprietorship or Net Worth under the three different kinds of ownership has already been set forth. The illustration on page 33 shows a typical form of classified balance sheet. This should be studied carefully, as it is the type which will be used hereafter.

The Problem of Content.—The form of the balance sheet serves the purpose of making easily available the information contained in the balance sheet. Form is of little value unless the content is accurate. What a balance sheet contains is, after all,

far more important than its form. The problem of content comprises a consideration of two points: (1) the proper inclusion of all items, both assets and liabilities, belonging in the balance sheet; and (2) the correct valuation of the items so included.

With regard to the first, it may be said briefly that care must be exercised to see that all assets belonging to the business and having value, and that all legally enforceable claims against the business of whatever nature, are included.

Assuming that a given balance sheet contains a list of *all* the assets and *all* the liabilities, the further problem of the proper valuation of these items must be considered. A balance sheet in which the title, Cash, includes counterfeit bills, N. G. (that is, no good or uncollectible) checks and other similar items, would not be considered a reliable balance sheet. Similarly, the basis for the valuation of each of the asset items must be investigated and determined correct before the balance sheet may be said to represent the true financial condition of the business. Some points in this connection will now be considered.

It is the experience of every business that it cannot collect all of the credits extended to customers. Regardless of how carefully credit is granted, it will be found that some customers do not pay their debts. Accounts and notes receivable must, accordingly, be valued with a proper consideration for the estimated amount of the uncollectible portion. The stock of merchandise on hand must be valued on the proper basis. The prepaid expense assets should show the value of the unconsumed portions of the assets purchased, with due regard to the time element. Thus, a three-year insurance policy purchased at the beginning of the year will at the close of the year be valued at two-thirds of its original cost. The fixed asset group will be valued at cost less depreciation, which represents the amount of the loss in value of the assets due to wear and tear, lapse of time, and obsolescence. The balance sheet should, so far as possible, show on its face that cognizance has been taken of these various problems of valuation. How this may be done is shown in the illustration on page 33.

In determining liabilities, providing they have all been included, there is not the danger of an understatement, because their amount

J. CHANNING SMITH

BALANCE SHEET

June 30, 19—

Assets

CURRENT ASSETS:				
Cash			$ 2,365.00	
Accounts Receivable		$8,500.00		
Less—Reserve for Doubtful Accounts		170.00	8,330.00	
Merchandise			10,425.00	
Prepaid Expenses:				
License Fees Paid in Advance		$ 175.00		
Unexpired Insurance		75.00		
Supplies		80.00	330.00	$21,450.00
FIXED ASSETS:				
Furniture and Fixtures		$ 750.00		
Less—Reserve for Depreciation		75.00	$ 675.00	
Buildings		$9,680.00		
Less—Reserve for Depreciation		242.00	9,438.00	
Land			2,500.00	12,613.00
OTHER ASSETS:				
Goodwill				5,000.00
Total Assets				$39,063.00

Liabilities

CURRENT LIABILITIES:				
Notes Payable		$2,500.00		
Accounts Payable		6,750.00		
Accrued Expenses				
Wages Accrued	$250.00			
Interest Accrued	75.00	325.00	$ 9,575.00	
FIXED LIABILITIES:				
Mortgage on Land and Buildings			5,000.00	
Total Liabilities				14,575.00

Net Worth

J. Channing Smith, Original Capital			$20,000.00	
Profit for the period			4,488.00	
Total Net Worth				$24,488.00

is subject to verification on the basis of the creditors' claims. For obvious reasons, the liabilities are seldom overstated.

General Principles Governing Form and Content.—In drawing up a balance sheet, the form must be flexible enough to meet whatever requirements for information may be placed upon it. Thus, a balance sheet to be presented to the banker as the basis of a loan should be carefully classified so as to show clearly the financial condition, and sufficient detail should be given to indicate the basis used in valuing the various items. A balance sheet drawn up for publication may, on the other hand, contain less detailed information and less attention need be given to its form. A balance sheet drawn up for use within the business itself may well contain very full information and its form should be such as will accurately portray the status of affairs. A balance sheet which shows on its face that cognizance is taken of uncollectible accounts and of the loss in fixed assets due to depreciation, gives more confidence to the reader that it is a proper financial statement than one lacking that information. Excepting for the general remark that regard must always be had to the purpose for which the balance sheet is drawn up, no hard-and-fast rule can be laid down in the matter of the relative fullness of detail with which it should be made.

Illustration.—To illustrate the features of the balance sheet discussed in this chapter, a statement showing the financial condition of J. Channing Smith is given on page 33.

CHAPTER 4

PROFIT, INCOME, AND EXPENSE

The Elements of Business Progress.—The conduct of the ordinary business is centered around the buying and selling of some commodity or service. In manufacturing and mercantile businesses, some form of merchandise is sold; in professional and brokerage businesses service of some sort is the thing dealt in. A lawyer, accountant, and stock broker sell their services, receiving fees therefor. A hotel may sell both service (e. g., housing service) and a commodity (e. g., food in the restaurant). Whatever the type of commodity or service dealt in, it is necessary to maintain a place of business, a business plant. This may be secured through ownership or lease. In the one case more capital must be employed than in the other. Thus, while the major activities of business operation are concerned with the buying and selling of stock-in-trade, minor but nevertheless extremely important, operating activities deal with the management of the business plant. The location of the plant at the most advantageous place, knowing the best markets in which to buy stock-in-trade, finding the most profitable outlets for sales, granting credits and making collections, having ready funds on hand to meet bills as they fall due, handling and caring for employees in such a way as to secure their loyal support and efficient service—all these are problems of management on the proper solution of which rests the successful outcome of business operation, the ultimate goal of which is the making of a satisfactory profit.

Profit and Proprietorship.—As before stated, the two basic problems of accounting are concerned with the determination of: (1) the worth or proprietorship of a business *at* a given time; and (2) the success or failure of business endeavor *during* a given or definite period of time. Of course, the aim of every business is to be successful. Success is evidenced by the making of profits,

which in turn, if left in the business, will increase the worth of the business. This suggests a method for determining the amount of profits made during a period. A comparison of the proprietorship at the beginning of the period with its amount at the end of the period will indicate the amount of profit made or loss incurred during the period, if none of the profit has been withdrawn nor any additional investment been made. Under the conditions just stated, the term "profit" is thus used to indicate the amount of the increase in the net worth or proprietorship of a business over a period of time; whereas the term "loss" has an opposite meaning.

Profits as Related to Assets and Liabilities.—Because profit is a part of proprietorship, it is as closely related mathematically to assets and liabilities and is as dependent on them for its size or amount as is proprietorship. This is evident from the proprietorship equation:

$$\text{Assets} - \text{Liabilities} = \text{Proprietorship}$$

Inasmuch as, by definition, proprietorship is the difference between assets and liabilities, any increase in proprietorship must be evidenced by an equal increase in that difference. Eliminating from consideration those increases in proprietorship occasioned by additional capital investments and those decreases brought about by definite withdrawals of capital funds, it will be apparent that a profit or gain will be evidenced by some one of the following four changes between the asset and liability groups:

1. An increase of total assets with no change in liabilities.
2. A decrease of total liabilities with no change in assets.
3. An increase of total assets accompanied by a lesser increase of the amount of total liabilities.
4. A decrease of total liabilities accompanied by a lesser decrease of the amount of total assets.

A loss will be reflected by changes in assets and liabilities just the opposite of those listed above.

To illustrate, let it be assumed that, at the beginning of a period, the proprietorship of a business is indicated by the equation:

$$\text{Assets } (\$100{,}000) - \text{Liabilities } (\$40{,}000) = \text{Proprietorship } (\$60{,}000).$$

If at the end of the period the assets have increased to $110,000 and liabilities have not changed (case 1 above), there is manifestly an increase of proprietorship, a profit, of $10,000, as shown below:

	Beginning of Period	End of Period	Change and Profit	
Assets	$100,000	$110,000	+ $10,000	
Liabilities	40,000	40,000	None	
Proprietorship	60,000	70,000	+ 10,000	(a profit)

In case 2 above, the situation might be reflected as follows:

Assets	100,000	100,000	None	
Liabilities	40,000	30,000	− 10,000	
Proprietorship	60,000	70,000	+ 10,000	(a profit)

In case 3 above, the situation might show as follows:

Assets	100,000	115,000	+ 15,000	
Liabilities	40,000	45,000	+ 5,000	
Proprietorship	60,000	70,000	+ 10,000	(a profit)

In case 4, the following condition might exist:

Assets	100,000	95,000	− 5,000	
Liabilities	40,000	25,000	− 15,000	
Proprietorship	60,000	70,000	+ 10,000	(a profit)

These illustrations should be considered carefully so that the relationship of profits to assets and liabilities will be thoroughly understood.

Profits and Additional Investments and Withdrawals.—The amount of change in proprietorship between the beginning and end of a period is indicative of the amount of profit or loss only when no new capital is invested during the period and when none is withdrawn. This will be evident by reference to the illustrations above for cases 1 and 4. Suppose in case 1, that an additional investment of $3,000 was made during the period. Of the total increase of assets there shown of $10,000, $3,000 has been brought about by additional capital invested. Accordingly, only $7,000 of the increase is indicative of profit. In order to determine profits by a comparison of net worths, in the event of

additional investments, the amount of such investments must be subtracted from the change in net worths between the beginning and end of the period.

In case 4, suppose that $3,000 of cash was withdrawn by the proprietor during the period. It is evident that had this sum not been withdrawn, the increase of proprietorship would have been $13,000, which is the true amount of profit for the period. Of this profit—i. e., increase in proprietorship—$3,000 was withdrawn, leaving a net increase of $10,000 in the business. Thus, where there are withdrawals of capital during the period, the amount of such withdrawals must be added to the change in net worths between beginning and end of the period in order to determine the profit for the period.

If, then, the following information is available at the end of the period: (a) net increase of proprietorship $15,000; (b) capital invested during the period $7,000; and (c) withdrawals by the owner during the period $4,000; the profit for the period will be determined as below:

Increase in proprietorship..............	$15,000	
Subtract:		
Investments during period..............	7,000	$ 8,000
Add:		
Withdrawals during period.....................		4,000
Net profit for period..........................		$12,000

Profit the Result of Business Operations.—The profit (or loss) in any business undertaking is thus reflected as the net change in its proprietorship after making the adjustments occasioned by additional investments and withdrawals during the period. Profit is a net or final result of the business activities of the period. In itself, it tells nothing of the amount or volume of business transacted nor the costs of operating the business—it shows only the net result of all such activities. In the management of a business, the proprietor is always striving to secure the greatest net profit results, but in so doing he needs as a guide the information as to volume of business done and the operating expense incurred in doing it. In a professional business—a doctor's or lawyer's—the volume of business is denoted by the fees earned. This constitutes

his income. The cost of the rent, heat, light, clerical hire, supplies used, telephone, etc., comprise his operating expenses incurred for the purpose of securing that income. The difference between the income and expenses indicates the net profit he has made, which will, as explained above, be reflected in the net worth or proprietorship. In a mercantile business where goods are bought and sold, the difference between selling price and cost price constitutes the merchant's income, and his operating expenses are much the same as those of the professional man, although in addition there are usually buying, selling, advertising, and delivery expenses. To maintain the proper relationship between income and expense is the most important problem of management.

Fuller Information Needed.—It is apparent, therefore, that more information is needed than that furnished by the balance sheet as this gives only the changes in proprietorship, the net profit result of the period. For the successful conduct of a business, the proprietor must have information as to the income and expense of his business. Only the proprietor who knows exactly what is happening in his business is in a position to exercise a definite and sure control over it. Hence, to give full information as to what is taking place within the business as well as what eventually will be the result in its financial status, is one of the major functions of the accounting department. Only in this way can that department serve as a means of control over the operations of the business.

Kinds of Records.—A business must have assets and usually must incur liabilities; a plant must be used, stock-in-trade must be bought and sold, and usually sufficient capital must be provided for the extension of credit to customers. Capital for the payment of the operating expenses of the business, the maintenance of the plant, the payment of salaries and wages of employees, and so forth, must at all times be provided. While it is true that the balance sheet shows the financial condition of the business, it gives little information as to the volume of business operations. It indicates the net worth and the net profit for the period, and shows the change in net worth. Yet as to how that increase or decrease in net worth came about, little or no informa-

tion is given. The balance sheet, in other words, is static; it indicates a quiescent state. It is a snapshot, showing the wheels of business momentarily stopped.

To give a full survey of the operations during a given period, a motion picture of the events between the dates of the balance sheets must be shown. Such a picture is dynamic. It gives a realization of the whirl and bustle of business being carried on. It pictures volume, content, and extent, whereas the balance sheet indicates the state arrived at as of a given moment. For purposes of management, which must control all the phases of business activity, a balance sheet is insufficient. A review of the factors producing results up to a given time must be had. Accordingly, the accounting department must supply not only information as to the present state of the assets and liabilities, but also information which indicates how the changes in assets and liabilities since the last fiscal period were brought about—what volume of transactions occurred, what expenditures of assets and energy were necessary to accomplish the results attained. This information, for purposes of internal management, is more vital than that concerning simply the present status of assets and liabilities. It is complementary to that obtained by a comparison of net worths and it is therefore explanatory of the changes in net worth.

The Net Worth Section Expanded.—In its operation of buying and selling goods, a business carries on many different types of transactions. As was indicated in Chapter 1, in the development of the proprietorship equation, some types of transactions have no effect on proprietorship, that is, they involve neither a profit nor a loss; while other types of transaction—the really vital types, because it is for these that the business is carried on—involve a change in proprietorship, either increasing or decreasing it. Goods are bought for one price and sold at a price sufficiently higher to pay for all the expenses of operating the business and leave a reasonable margin of profit. For example, goods may be bought for $1,000 and sold for $1,800, bringing about an increase of $800 in the sum total of the assets. This $800 may represent temporarily an increase in proprietorship but the increase must be used first to meet the expenses of operating the business during

the period in which the sale is made, after which the net result represents the real or permanent increase in proprietorship. The temporary increase of $800 is offset by a decrease of, say, $600 for operating expenses. It is vital to business management to have information not only concerning the net increase in proprietorship but also concerning these temporary increases and decreases. To give this information, the net worth section of the balance sheet might be expanded as in the illustration given below.

JAMES R. SHOTWELL

BALANCE SHEET

December 31, 19—

Assets			
Cash		$ 5,000.00	
Accounts Receivable		75,000.00	
Merchandise		20,000.00	
Plant		50,000.00	
Total Assets			$150,000.00
Liabilities			
Accounts Payable		$30,000.00	
Accrued Expenses		5,000.00	
Mortgage on Plant		30,000.00	
Total Liabilities			65,000.00
Net Worth			
James R. Shotwell:			
Capital at the beginning of the year		$70,000.00	
Profits during the year:			
Sales	$200,000.00		
Cost of Goods Sold	140,000.00		
Temporary Increase in Proprietorship	$ 60,000.00		
Operating Expenses	45,000.00		
Profit for the Period		15,000.00	
Capital at the end of the year			$ 85,000.00

In the net worth section of this balance sheet, the capital with which the owner started operations for the year is given first. To this is appended a summary of the operations for the year resulting

in a net increase in proprietorship which, added to the beginning capital, gives the capital in the business at the end of the year. This method of setting up the information concerning the operations of the business is not used to any extent because the information is of such vital importance that it deserves more prominence. Accordingly, a separate statement, known as the "Statement of Profit and Loss," or "Statement of Business Operations," is drawn up to explain the balance sheet net worth item, Profit for the Period, which shows just the amount of the net profit. The details of this item are set forth in this complementary statement. The above illustration is given merely for the purpose of pointing out the relationship between the statement of operations and the balance sheet. From this it will be seen that the statement of profit and loss is really a part of the net worth section of the balance sheet, and that, because of its importance, it is set up as a separate statement, only the net result—the net profit—being shown on the balance sheet.

Temporary Proprietorship Records.—The proprietorship records, indicating as they do the sources of changes in net worth, are kept day by day as transactions take place, are summarized at the close of the period, and the net result is determined. They are called temporary because, as is seen, they do not at the time of record have regard for the final change in proprietorship. At the end of the regular periods, to determine the total or final change, the temporary proprietorship records are closed or transferred to the summarized record called the "Statement of Profit and Loss."

Illustration.—To illustrate, assume the following facts relating to the business operations of James R. Shotwell referred to on page 41.

Stock of merchandise on hand at beginning of year \$25,000; merchandise purchased during year \$135,000; sales for the year \$200,000; salaries paid \$20,000; sundry expenses \$23,000; depreciation in the value of plant due to wear and tear, \$2,000. It will be noted from his balance sheet that merchandise on hand at the close of the year amounts to \$20,000.

An analysis of this information will explain the changes in his net worth during the year. From the above data it is possible to determine his income and the expenses of operating his business and, therefore, his net profit. The income is the margin between selling and cost prices of goods sold. This constitutes a temporary increase in proprietorship out of which operating expenses must be met before the net profit result for the year can be computed. Thus, this requires first a determination of the cost price of goods sold. If, to the goods on hand at the beginning of the year ($25,000), there are added the purchases ($135,000), the sum represents the total amount of goods available for sale. Of this sum ($160,000), there remains unsold at the end of the year goods valued at $20,000. The difference between these two amounts ($160,000 – $20,000) represents the cost price of the goods sold—here $140,000. The excess of selling price ($200,000) over this cost price ($140,000) determines the income ($60,000), sometimes called the "gross profit margin" or simply "gross profit." To make those sales and secure that income, Shotwell incurred the costs of running his business, such as salaries to employees, rent, light, heat, telephone, postage, stationery, supplies, advertising, delivery expense, buying expenses, depreciation, etc. Only a few details are here given, but his total operating expenses are: salaries $20,000, sundry expenses $23,000, and depreciation $2,000 —in all $45,000. The difference between income ($60,000) and expenses ($45,000) shows the amount of net profit ($15,000), constituting an increase of proprietorship.

Without regard to a form which would be technically correct, the data of the preceding paragraphs may be shown as follows:

Goods on hand at the beginning	$ 25,000
Goods bought during the year	135,000
Total goods available for sale	$160,000
Goods unsold now on hand	20,000
Cost of goods sold	$140,000
Selling price of goods sold	$200,000
Cost price of goods sold, as above	140,000
Gross profit margin—Income	$ 60,000

Expenses of doing business:		
Salaries	$20,000	
Sundry expenses	23,000	
Depreciation	2,000	
Total expenses		45,000
Net profit, or increase in net worth		$ 15,000

The technical form of the summary of the temporary proprietorship elements will be presented in the next chapter.

CHAPTER 5

THE STATEMENT OF PROFIT AND LOSS

Type of Information Needed.—The need and purpose of the information to be furnished by the temporary proprietorship records were pointed out in Chapter 4. Without information of this sort, proper control of business operations cannot be exercised. These records supply a summarized picture of the activities of the business during a definite period, which have as their goal the increase in proprietorship—the making of a profit. As explained in Chapter 4, to attain this goal, two main types of activities or operations are entered into, usually classified under the heads of: (1) income or earnings, by which is meant those activities which immediately and directly increase proprietorship; and (2) expenses or outgo, comprising those activities which decrease proprietorship. Expenses are the costs incurred in securing income, and are therefore deductions from it. A fuller explanation of these terms will now be given.

Income.—Income is usually of two types: operating and non-operating. These terms are always relative; that is, what is an operating income in one business may be a non-operating income in another business. The term "operating income" is used to indicate the main sources of income in a given business. It is always the duty of the accounting department to indicate the sources of income. Thus in a trading or mercantile business, the selling of goods to customers is the main source of income, the amount of the income being the difference between the sales and cost price of the merchandise. In a professional business, the selling of services, often titled "professional fees," is the main source; in a brokerage or commission business, commissions earned; in institutions, tuition and other fees; in a financial business, interest earnings; in a society, membership fees; in public utility companies, freight and passenger revenue, sales of power

and gas, fares, etc. These are typical titles for indicating the main source of income in the several kinds of undertakings mentioned.

While sales are the major source of income in a trading concern, there may be supplementary sources. It may own stocks and bonds from which income may be derived. In a manufacturing or mining enterprise, the company may own dwelling houses and rent them to its employees. Conditions of travel and communication may also force it to provide stores, places of amusement, and so forth for its workers. From all these supplementary activities it will derive income. As it was not organized primarily for these purposes, but chiefly to manufacture or mine a commodity, the income from these collateral activities is classed as non-operating income. Other sources of income are: (1) the sale of assets other than stock-in-trade, such as securities, machinery, land, etc., for more than the values at which they appear in the records; (2) rents and royalties received from buildings, premises, patent and other rights, etc., the use of which is sold or permitted to others for an agreed compensation; (3) distributions of profits of other businesses made to their stockholders, usually in the form of dividends; etc.

The distinction, then, between operating and non-operating income is, as mentioned above, always a relative one and will be determined in any given instance on the basis of major activities and supplementary or minor activities. Some of the titles under which income is recorded will now be explained.

Sales. Under this title is recorded the amount of sales of the stock-in-trade in a merchandising or manufacturing concern. Two elements are included here, namely, the decrease of the asset merchandise and the increase of proprietorship—the true income element. When goods costing \$10 are sold for \$18 cash, there is manifestly a decrease of merchandise stock by \$10 in place of which the business has \$18 in cash, \$8 of this being profit, i. e., income. This will be discussed more fully later.

Sales Returns. This title does not represent income but, as its name indicates, shows the amount of the goods sold which have been returned because of dissatisfaction with the quality or condi-

tion of the goods or of some error in sending the wrong kind, or other reason. The effect of goods returned is to reduce the amount of sales originally recorded.

Sales Allowances. These are similar to sales returns in that they indicate a deduction from sales income for the allowances made to purchasers who for one reason or another have cause to be dissatisfied with the goods but agree to retain them providing an allowance from the original selling price is made. The effect of the allowance is to reduce the original sale price of the goods.

Interest Income. Under this title is recorded the income from money loaned or credit extended. Notes receivable and bonds are the usual sources. Sometimes open accounts receivable also bring interest.

Rental Income. Under this title is recorded income received from the lease of premises, lands, or buildings.

Professional Fees. Under this title is recorded the income from charges made for professional services, such as legal, medical, accounting, engineering, etc.

Commissions Earned. Included under this title is the income received from services rendered in the selling of commodities for a principal.

Purchase Discount. This represents the deduction allowed from the original charge for paying a debt in advance of the date named in the purchase contract. Thus, where goods are bought under terms of sale such as, 2/10, n/30,[1] the contract with the vendor permits full settlement of the debt by either of two methods of payment. For example, a bill of goods invoiced at $1,000 and sold 2/10, n/30, can be settled within 10 days by a payment of $980 or by a payment of $1,000 within 30 days. Where the first option is taken, the 2% discount is termed a purchase discount, amounting in this case to $20.

Expenses.—Expenses are also of two types: operating and non-operating. The same distinction is made here as with income.

[1] Read, "two ten, net thirty," and meaning 2% off if paid within 10 days, if not so paid then the face amount of the bill, net of any returns and allowances, must be paid within 30 days.

Those expenses incurred in securing operating income are operating expenses, while those incurred in securing non-operating income or for other purposes are called non-operating expenses.

To secure control over the operating and non-operating types of activities, it is necessary to compare operating income with operating expenses, and non-operating income with non-operating expenses, in order to measure the return by the cost of the effort expended in securing that return. Some of the more common titles under which the record of expenses is made are as follows:

Salaries (Wages). Under this title is included the cost of the services rendered by employees. This may be classified in accordance with the department in which the service is rendered; for example, factory wages, salesmen's salaries, office salaries, and so forth.

Traveling Expenses. The costs of railroad fare, entertainment, and so forth, when traveling in the interests of the business.

Advertising. The cost of publicity in making known the commodities offered for sale by the business. Several titles are sometimes used for this, such as newspaper advertising, magazine advertising, radio advertising, etc. The degree of detail in the record will depend upon the degree of detailed information needed by the executives.

Buying Expense. The costs incurred in making purchases for the business. These may comprise the salaries of buyers and all expenses in connection with maintaining a purchasing department.

Rent. The cost for the use of premises or equipment not owned.

Plant Maintenance. The cost of upkeep, repairs, etc., on the plant used by the business and usually owned by it. The cost, by purchase or manufacture, of light, heat, and power may be included here but is usually recorded under a separate title, such as Light, Heat, and Power.

Operating Supplies. Under this title is carried the cost of all goods and commodities used in operating the business and the business plant. Such items as lumber, nails, and other repair

materials, brooms and other house cleaning agents, oil, waste, fuel, wrapping paper, twine, packages, etc., are expenses under this title.

Depreciation. The decrease during a given period of the value of a fixed asset due to wear and tear, lapse of time, obsolescence, etc.

Bad Debts. The amount of outstanding accounts receivable which have proven or are judged to be uncollectible.

Sales Discounts. The cost incurred because of the financial policy of charging a customer a smaller amount than the amount of the bill, provided he pays by a given date. The explanation of this item is similar to that of Purchase Discounts but of an opposite nature.

Telephone, Telegraph, Stationery, Postage, Interest Cost, Commissions Paid, Insurance, Printing, etc. These all indicate by their titles the nature of the expense or cost items.

The student should understand that expenses may be set up in very much greater detail than that indicated by the above titles. Usually the title under which record of an expense is made will indicate with sufficient clearness its character.

The Profit and Loss Summary.—As indicated in Chapter 4, the profit and loss summary shows the manner in which the net worth of the business has been changed as the result of operations of the business, as distinguished from changes brought about through withdrawal or investment of capital. Although it is really a part of the balance sheet, which shows financial condition, because of its importance it is, however, set up as a separate statement. It amplifies and fills out the record shown by the balance sheet. It is a supplementary record because it gives additional information, and is complementary to the balance sheet because it rounds out and completes the story of business life there recorded.

Just as with the balance sheet, the main problems of the profit and loss summary relate to: (1) its form; and (2) its content. After an explanation of some of the terms used in connection with the summary, these two problems will be discussed.

The Fiscal Period.—Because of the work involved and the frequent incompleteness of the records at the close of each day, a daily statement of condition is very seldom made up. The business experience of a particular enterprise determines the frequency of preparation of these statements. Whatever the period may be between statements, be it a month, three months, a half-year, or a year, it is called the fiscal period, i.e., it is the period at the end of which records are summarized for the purpose of ascertaining the profit or loss for the period. For purposes of comparison with preceding and following fiscal periods under similar conditions, the fiscal period should be, and usually is, a period of regular length—a half-year or year being perhaps the most common, though in many enterprises it is customary to draw up monthly statements. These are sometimes informal and incomplete, but serve a useful purpose by making monthly comparisons possible.

Need for the Physical Inventory.—Again, because of the work involved, especially where the product dealt in is small in value and sales are numerous—as in stores dealing in clothing, food, and the like—no record of the cost of each article is kept as it is sold, only the sale price being recorded. It is not possible, therefore, to determine from the records as usually kept, the cost of the goods on hand at a given time. The records are kept in this way, not because systems of accounting cannot be devised to make both records, but because the results obtained by such systems are not justified by their cost when other and less expensive means can be used with almost as satisfactory results.

The customary method of finding the cost of goods sold was indicated and illustrated in Chapter 4. Summarized, it requires that from the sum of goods on hand at the beginning and those purchased since, there be subtracted the goods on hand and unsold at the close of the period. This last item, the goods on hand and unsold, is secured by making an actual count and valuation of such goods at the close of the fiscal period. The expedient of physical inventory-taking is, therefore, brought in as an aid to the accounting records, but only in the interests of economy.

Form of Profit and Loss Summary.—One of the principal problems in connection with the profit and loss summary deals with its form, how it is drafted, or set up.

General Principles Governing Make-Up. The profit and loss statement, as the complement of the balance sheet, is just as formal in character and the same general considerations govern as in the make-up of the balance sheet, viz.: (1) the general purpose it is to serve; (2) the likelihood of obscuring essential facts through too great detail; and (3) the general appearance as to legibility, clearness of form and expression, and arrangement on the page.

Title. The heading of the summary must show the name of the business, followed by the title of the summary and the statement of the exact period covered by it. It was noted in Chapter 4 that whereas the balance sheet is a statement of financial condition as *at a given date,* the profit and loss summary is a statement of operations which have taken place *during a given period.* Hence, it is not sufficient merely to state the date of the close of the period. If, as is usually the case, the fiscal periods are of uniform length in a given business, the phraseology "For the Period Ended............" will be sufficient for use within that business. It is better, however, for all statements of operation to indicate the length of the period covered. A typical heading for the profit and loss summary is indicated below:

T. Collins Ayres & Company
Statement of Profit and Loss
For the Six Months Ended December 31, 19—

Arrangement. The arrangement of the summary has already been indicated. The income from operations, that is, the operating income—sales less cost of goods sold, if a mercantile business—is shown first, and is followed by the operating expense, and then by the amount of the difference or the net result of operation. Next is shown the non-operating income, followed by the non-operating expense. The net result of this combined with the net result from operations gives the net result for the period, this being the figure shown on the balance sheet, the detail of which is explained by the profit and loss summary.

The manner in which important items are shown; the use of marginal indentations to set forth similar groups of items; the showing of items under the group titles; and the manner of using the different columns for the amounts, sub-totals, and totals—all these are important matters of form and arrangement and should be carefully noted. See form on page 56.

Content of Profit and Loss Summary.—The content of the profit and loss summary is determined by the need of information for purposes of management. A profit and loss summary which is sufficient for a small business, where the proprietor is in intimate contact with all phases of the business, would not give sufficient information for the proper control of a large business, where the managing executives are dependent for their information as to the various phases of business activity on reports made to them. There is, however, a fairly standard outline or skeleton in accordance with which this summary is usually drawn up. It is the purpose here to explain that outline.

The first section of the statement has for its purpose the separation of the sales item into its two elements, referred to above: (1) the Cost of Goods Sold, which indicates the amount by which the asset merchandise has been decreased through sale of goods; and (2) the Gross Profit or the excess of selling price over cost—the income element—out of which must be met the costs of operating the business before the net change in proprietorship can be determined. This section is usually spoken of as the "trading" section of the statement. The set-up of this section shows, accordingly: (1) the Sales item, from which are shown deducted the amounts of sales returns and sales rebates and allowances in order to arrive at the figure of net sales; and (2) the Cost of Goods Sold, under which is listed the cost of goods sold as explained in Chapter 4. This cost requires the showing of the initial inventory, the purchases for the period, the inward costs of laying down the merchandise at the place of business, such as insurance on goods in transit, freight and cartage costs, and so forth. From the sum of these items will be shown deducted the returned purchases and the amount of the final in-

ventory, the difference indicating the cost price of goods disposed of by sale. With the "inward" cost of goods is sometimes included the sum total of all buying expenses. In other cases, particularly where a complete purchasing department is maintained, a separate buying expense section is set up to summarize these costs.

Following this trading section comes the formal statement of operating expenses which are usually classified for purposes of information into the groups: Selling Expenses, General Administrative Expenses, and Financial Management Expenses. The basis for the grouping depends largely on the internal organization of the business. If the functional organization referred to in Chapter 1 is followed, then group headings for each one of the functions should be set up so that the costs chargeable against each major executive activity may be segregated and known. Only in this way is it possible to hold each executive responsible for the results he obtains in his particular department of the business. Whatever the groupings, under each one of the group headings should be listed the detailed items. Thus, under the selling expense group should be shown such items as salaries to salesmen; the traveling expenses incurred by them; the cost of publicity, advertising, and so forth; the sales management expense; and the delivery expenses, although these expenses are sometimes set up in a group by themselves.

The student will note that under the head of selling expenses are grouped all of the direct costs incurred in making sales.

Under the general administrative expenses should be shown such items as office salaries, stationery and supplies, postage, telephone and telegraph, light, heat, insurance, depreciation, and all other items which cannot be charged to definite departments of the business but must be borne by the business as a whole.

Under financial management expense should be listed the various items of expense which represent the financial activity of the business as related to its major purposes and which are operating financial expense items. Here will be shown such items as interest on current borrowings for operating the business; sales discounts granted customers in order to secure cash payments

from them at an earlier date than the limit of the normal credit period allowed them; collection costs; bad debts; etc.

A final section of the *operating* portion of the profit and loss statement lists the items of income arising out of the management of the working capital finances of the business. Interest received on customers' notes and on cash balances in the bank, and purchase discounts, are usually the only items of income under this head.

The difference between gross profit on sales and the sum of these operating expenses minus the financial income, is the operating profit of the business, sometimes called Net Operating Profit.

The section following this is devoted to the marshaling of the items of Non-operating Income and Expense. Whichever of these two groups is the larger is set up first, and from its total is deducted the total of the other group. The net amount is then shown extended under the item of net operating profit, to which it is added if it is a net income item and from which it is subtracted if it is a net expense item. The resulting figure is the Net Profit for the period.

Occasionally, there are extraordinary items of profit or loss not to be classified under any of the above heads, which have to be shown in additional sections of the profit and loss statement. These are matters which will be taken up later.

It should be noted that the above paragraphs outline a simple statement of profit and loss for a commercial or trading business as distinguished from an industrial or manufacturing enterprise, the statement for which is somewhat more complex even in its general outlines and explanation of it is deferred to Chapter 28.

Algebraic Content of the Profit and Loss Statement.—An algebraic presentation of the profit and loss statement is oftentimes helpful in fixing in mind the make-up of the sections and their significance and relation to the whole summary. The summary is reducible to the equation:

(1) Income − Expenses = Net Profit

The term, Income, is determined by the equation:

(2) Sales − Cost of Goods Sold = Gross Profit, i. e., Income

The term, Cost of Goods Sold, may be expressed in simple form by the equation:

(3) Initial Inventory + Purchases − Final Inventory = Cost of Goods Sold

The operating expense portion of the statement is covered by the following equation:

(4) Gross Profit − Net Operating Expenses (Selling Expenses + General Administrative Expenses + Financial Management Expense − Financial Management Income) = Net Operating Profit

To determine Net Profit, the following equation shows the content and procedure:

(5) Net Operating Profit + (Non-operating Income − Non-operating Expense) = Net Profit

(6) Net Operating Profit − (Non-operating Expense − Non-operating Income) = Net Profit

Equation (5) is to be used when non-operating income is larger than non-operating expense and equation (6) when the reverse is the case.

The Disposition of the Net Profit.—The net profit for the period belongs to the proprietor and constitutes an increase in his proprietorship or investment, unless he has already drawn out some of these profits as they accrued. In this case, his drawings must be subtracted from the net profit indicated before showing the increment to his net worth. Accordingly, a final section of the profit and loss statement may give the disposition or appropriation of the net profit. This section, when used, is known as the "appropriation" section. If the business is a partnership, this section should show in detail the distribution of net profit to the several partners according to the agreement among them as to the proportions in which they are to share gains or losses. If a corporation, it should give the disposition made of the net profit in the way of dividends to the stockholders, and any other appropriation made of these profits, including transfer to surplus. It should be understood that it is not the universal practice to include an appropriation section as a part of the statement of profit and loss, particularly when the corresponding bal-

ance sheet sets forth much the same information in the net worth section. The showing of the detailed disposition of net profit in the appropriation section is usually a desirable practice, however.

Illustration of Statement of Profit and Loss.—A typical illustration of a profit and loss summary is given below for the guidance of the student.

JOHNSON & BEHRLE

STATEMENT OF PROFIT AND LOSS

For the Year Ended June 30, 19—

SALES			$525,600.00	
Less:				
Sales Returns		$ 5,000.00		
Sales Rebates and Allowances		600.00	5,600.00	
NET SALES				$520,000.00
COST OF GOODS SOLD:				
Inventory, July 1, 19—		$ 96,670.00		
Purchases during the year		350,000.00		
Freight and Cartage Inward		1,000.00		
Insurance in Transit		750.00	$448,420.00	
Less:				
Purchase Returns		$ 1,750.00		
Inventory, June 30, 19—		105,000.00	106,750.00	
Cost of Goods Sold				341,670.00
GROSS PROFIT				$178,330.00
SELLING EXPENSES:				
Salesmen's Salaries		$ 20,000.00		
Advertising		25,000.00		
Delivery Expense		5,000.00	$ 50,000.00	
GENERAL ADMINISTRATIVE EXPENSES:				
Office Salaries		$ 10,000.00		
Stationery and Supplies		1,500.00		
Postage		250.00		
Telephone and Telegraph		750.00		
Light and Heat		1,750.00		
Insurance		1,500.00		
Depreciation:				
Furniture and Fixtures	$2,000.00			
Buildings	1,500.00	3,500.00		
Miscellaneous Expenses		750 00	20,000.00	

FINANCIAL MANAGEMENT EXPENSES:			
Interest Cost	$ 250.00		
Sales Discounts	5,000.00		
Bad Debts	1,000.00		
Collection Costs	250.00	6,500.00	
Total Operating Expenses		$ 76,500.00	
FINANCIAL MANAGEMENT INCOME:			
Interest Earned	$ 1,350.00		
Purchase Discounts	3,500.00	4,850.00	
Net Operating Expense			71,650.00
NET OPERATING PROFIT			$106,680.00
NON-OPERATING EXPENSES AND INCOME:			
Income—Profit on Sale of Securities		$ 2,000.00	
Expense—Loss on Sale of Trucks		900.00	1,100.00
NET PROFIT FOR THE YEAR			$107,780.00
Appropriation of Net Profit:			
Edward F. Johnson, 2/5 share		$ 43,112.00	
George T. Behrle, 3/5 share		64,668.00	$107,780.00

In the case of a single proprietor, there is little need for an appropriation section, for the profit belongs to the one owner. In the case of a corporation—if we assume net profits of $100,000, dividends of $55,000, and reservation for the sinking fund of $20,000—this section might show as follows:

NET PROFIT FOR THE YEAR		$100,000.00
Appropriation of Net Profit:		
Dividends	$55,000.00	
Reserve for Sinking Fund	20,000.00	
Balance Transferred to Surplus	25,000.00	$100,000.00

The Two Methods of Determining Net Profit.—It is particularly important to note that the profit shown by the profit and loss statement must be the same as that developed by the comparison of net worths, since both cover the same period and constitute merely two ways of developing the same result. For this reason they are valuable in proving the correctness of results, acting as checks against each other. The student must bear in mind, however, that the increase or decrease in proprietorship shown by the comparison of net worths must always be adjusted by taking account of additional investments or withdrawals of

capital before the net profit for the period can be so determined, and therefore before this figure can be used as a check against the amount of net profit shown by the statement of profit and loss.

The accounting department keeps both classes of records, viz., the asset and liability records and the temporary proprietorship or income and expense records, not because both are needed to develop the *amount* of net profit—either class would do this—but because both are needed for the additional information which they give and which is valuable and necessary for the intelligent management of the business.

CHAPTER 6

THE RECORD OF BUSINESS DATA—THE ACCOUNT

Change Constantly Takes Place in Business.—The balance sheet shows the business at rest; it is a picture of financial condition at a given moment of time. The statement of profit and loss gives a summary of those activities undertaken for the purpose of making a profit. It shows the business at work throughout the period; it is an *operating* statement. Business is seldom quiescent; every transaction brings about a change in some of the basic elements of the business. Thus, a sale of goods for cash effects an increase in the asset, Cash, a decrease in the asset, Merchandise, and an increase in proprietorship by the amount of the profit. A payment for rent decreases the asset, Cash, and also decreases the proprietorship element. Inasmuch as it is one of the tasks of the accounting department to furnish the data used in making up the balance sheet and profit and loss statement, a convenient means must be found of recording these data and the changes which the business is constantly undergoing. It is our purpose now to develop such a means.

Recording Changes in the Equation.—The balance sheet is always in equilibrium; i.e., by definition of the term "proprietorship" there is always the equation of the balance sheet, viz.:

$$\text{Assets} - \text{Liabilities} = \text{Proprietorship}$$

This is also written in the form:

$$\text{Assets} = \text{Liabilities} + \text{Proprietorship}$$

In this form, only the mathematical process of addition is needed for its operation. Inasmuch as there is always this equation, it must be evident that any change in one of the terms of the equation will bring about an equal change in one or both of the other terms. Thus a record of any business transaction requires

a *double* entry, an entry of the change caused in the one term and also of the corresponding change in the other term or terms.

It is apparent that the horizontal form of the equation does not lend itself to a convenient record of transactions or changes; it is limited by the width of the page. Hence, for the purpose of recording changes a vertical set-up of the equation has been devised, following somewhat the form of the formal balance sheet, with this difference that each page of the record book is divided into two equal parts, a left half and a right, these being separated by a vertical equality sign running the length of the page. A balance sheet equation so set up would show as follows:

Assets	250,000	‖	Liabilities	100,000
		‖	+	
		‖	Proprietorship	150,000

As transactions occur and changes take place in these terms, increasing or decreasing them, it is evident that asset increases will be recorded on the left half of the page, where they can conveniently be added to the asset values already shown, and that, for a similar reason, liability and proprietorship increases will be recorded on the right half of the page. Decreases of the various terms might be recorded on the same side with the increases and subtracted from them. This would necessitate a mixing of the mathematical processes of addition and subtraction, would be cumbersome, and might be a frequent source of error in the record. Hence, for the recording of decreases, the entry of the decrease is made on the opposite side of the equality sign or page from that used for increases. Thus decreases are recorded by the algebraic method, whereby subtraction items on one side of the equality sign become plus or addition items when transferred to the other side of the equality sign. By this method the decrease is merely *indicated,* the net result not being actually shown. To show that a given entry is a decrease in a term shown opposite and not an increase in the terms shown on the same side

of the equality sign, the titles of the terms are moved to the center of the page somewhat as follows:

ASSETS

250,000	

LIABILITIES

	100,000

PROPRIETORSHIP

	150,000

If now the following changes take place, the record of them will show as on page 62.

1. The purchase of merchandise on credit, $5,000.
2. The payment of salaries, $1,000.
3. The payment of an account payable liability, $2,500.
4. The receipt of rental income, $300.

Transaction 1 effects an increase of the asset, Merchandise, with a corresponding increase of the liability, Accounts Payable. The record of this is shown in the equation by the use of the transaction number, (1).

Transaction 2 effects a decrease of the asset, Cash, with a corresponding decrease in proprietorship, i.e., an expense.

Transaction 3 brings about a decrease of the asset, Cash, with an equal decrease in liabilities.

Transaction 4 results in an increase of the asset, Cash, and an equal increase in proprietorship, i.e., an income.

The student should note carefully how these increases and decreases of the different terms of the equation are recorded. It

is manifest that the record is always in equilibrium, because equal entries for each transaction are made on each side of the equation.

ASSETS

	250,000	(2)	1,000
(1)	5,000	(3)	2,500
(4)	300		

LIABILITIES

(3)	2,500		100,000
		(1)	5,000

PROPRIETORSHIP

(2)	1,000		150,000
		(4)	300

The Detailed Equation.—Record-making is thus conveniently accomplished by the use of the vertical equation in which decreases are entered on the opposite side from increases of each of the terms. In order to show separately the individual items making up each of the several asset, liability, and proprietorship titles, a separate title or record for each individual item under the group is substituted for the group title. For purposes of illustration, assume that the $250,000 of assets are composed of: cash $15,000, accounts receivable $50,000, merchandise $35,000, and plant $150,000; that the liabilities of $100,000 comprise accounts payable $40,000 and mortgage payable $60,000; and that proprietorship of $150,000 represents John Doe, Capital. An informal record of the above data and of the four transactions on page 61—indexed by transaction number—will appear as follows:

CASH

	15,000	(2)	1,000
(4)	300	(3)	2,500

ACCOUNTS RECEIVABLE

	50,000		

MERCHANDISE

	35,000		
(1)	5,000		

PLANT

	150,000		

ACCOUNTS PAYABLE

(3)	2,500		40,000
		(1)	5,000

MORTGAGE PAYABLE

			60,000

JOHN DOE, CAPITAL

			150,000

SALARIES

(2)	1,000		

RENTAL INCOME

		(4)	300

Trace carefully the set-up of the original equation and the subsequent changes recorded therein. The form of the equation, as illustrated above, is, with a few additional refinements, the form used for the day-to-day record of the changes taking place in the proprietorship equation brought about by the operation of the business.

The Ledger Account Defined.—Each of the above detailed titles of the terms of the equation is called an account. An account may be defined as a record of one or more items, either similar or dissimilar, relating to the same person or thing, kept under an appropriate heading or title. As has already been explained, the record is kept in such a way as to make easy the addition of similar items and the subtraction of dissimilar items. Accounts are kept both with persons, as the accounts receivable and payable already mentioned, and with things, such as land, buildings, machinery, merchandise, cash, and the like. Some accounts are composed of both similar and dissimilar items. For example, the cash account is composed of both cash received and cash paid out items; the accounts receivable record both the items for which the person is in debt to the business and those which show the cancellation or settlement of the debt, in part or in full; and the accounts payable record the items for which the business is in debt to the person and those which show cancellation of the debt or settlement by the business. Accounts which record income and expenses usually comprise only similar items. Thus, usually, under Rental Income will be recorded only income items, and similarly under Salaries will be recorded only salary expense items—the first an increase of proprietorship, the second a decrease. Seldom are both increases and decreases of proprietorship recorded in the same account.

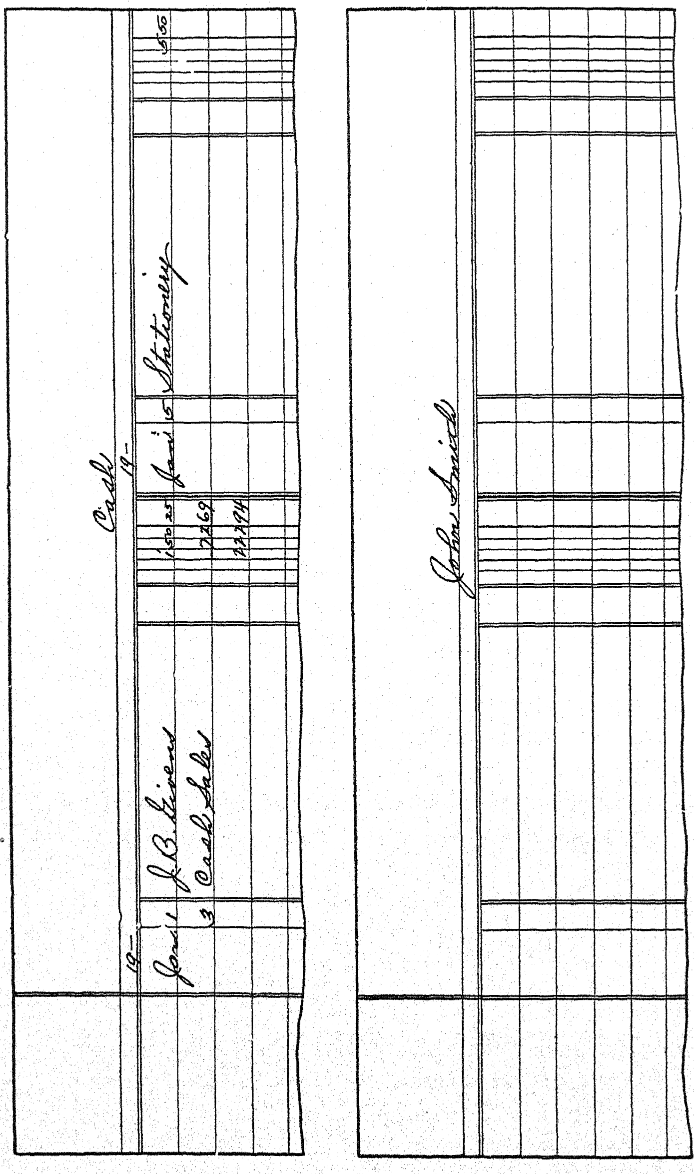
The Ledger and Its Content.—The ledger may be defined as the book of accounts. In it are collected most of the data needed for the final statements showing the financial and operating condition of the business. By means of its account titles, it makes an analytical record of all transactions, according to the information desired, and through the mechanism of the account it

groups and summarizes all data affecting each particular account, thus furnishing the proprietor with totals instead of items. In the ledger, therefore, will be kept the several classes of accounts from which the balance sheet and profit and loss statement can be made up. One group will show assets, another liabilities, another capital, another income, and a final group will show expense. A summary of the last two groups—comprising the temporary proprietorship items—will show the net change in proprietorship, which combined with the Capital account will give the ultimate or net proprietorship as shown by the balance sheet.

The Form of the Account.—As explained above, to separate similar from dissimilar items, the account is divided into two sections, a left and a right section, which are shown in the standard form given in Form 1.

The account head or title is placed in the center over the division line, or vertical equality sign. To provide additional information, at the extreme left of each section are the date columns —year, month, and day. Note particularly where the "year" is shown. The space following is for explanatory matter; the next column (left flank in the illustration) is a cross-indexing or reference column whose use will be explained later; and the last column in each section is the money column, where the dollar subsection column is further divided into columns for each digit of the amount. Care must be exercised to observe such divisions when writing in the amounts. The account with Cash in the illustration shows on the left a receipt of $150.25 from J. B. Givens, and on the right, the payment of $5.50 for stationery. These two items are entirely dissimilar. Another receipt of $72.69 on January 3 from cash sales is shown on the same side of the account as the record of the previous receipt and directly under it. Note that the name of the month is not repeated.

The Mechanism of the Account.—Thus the mechanism of the account is designed not only to give a brief history of each item entered therein, but primarily to bring together all items of the same kind relating to that account, so that they may be summarized. It should be thoroughly understood that all items on each side of the account are similar items, though the two sides



Form 1. Ledger Accounts

themselves are of exactly opposite kinds. Where the account has entries on both sides, i.e., is composed of dissimilar items, a comparison of the totals of each group shows the net condition of the account. In the Cash account given, the total of the left side, $222.94, showing receipts, compared with the total of the right, $5.50, showing disbursements, indicates that there is $217.44 cash now on hand. It is evident, therefore, that the account is a mathematical device for holding on one side all items to be added and on the other all items to be subtracted. Only in this way can addition and subtraction be performed within the account. The account uses the algebraic—not the arithmetic—method of subtraction whereby the process of subtraction is *indicated* but not actually performed.

The Number of Accounts.—The number of accounts to be kept in the ledger is determined by the amount of detailed information desired for the guidance of the management of a business. The balance sheet and profit and loss statements are usually summarized statements, oftentimes combining under a group title many similar items which may be subdivided in the ledger into numerous accounts. Thus, for the guidance and information of the plant superintendent, it might be necessary to carry a very large number of accounts, each relating to an individual part of the plant and its equipment. An account with each building might even be necessary, and with each class of machinery. On the balance sheet, however, these would usually be combined under one or, at most, a few group titles.

The Balance of the Account.—As stated, the account is divided into two sections, a left and a right, for the purpose of separating items relating to the same account which are dissimilar, and thus affording a comparison between the totals of these dissimilar groups. An account containing dissimilar items may have the same total on both sides, in which case it is said to balance, that is, the items on one side exactly balance or cancel those on the opposite side; or one side of the account may be larger than the other, in which case the amount of the excess is called the "balance" in the account, or of the account. An account takes its nature or classification from the larger side, on which the bal-

ance appears. The account balances are shown in summarized form on the balance sheet or the profit and loss statement.

The Meaning of Account Balances.—In asset accounts the larger side, and therefore the balance of the account, is normally on the left, i. e., the balances of Cash, Land, Buildings, Furniture and Fixtures, Notes Receivable, and the like, are normally left-side balances. It follows, therefore, that all entries showing the acquisition or increase of assets are made on the left side of their accounts, and all entries showing the disposal or decrease of assets are made on the right side of the accounts. Very seldom are the cancellations listed on the right side in excess of the asset values listed on the left.

In the liability accounts the balance is normally on the right side because, as indicated by the proprietorship equation, liabilities are subtraction items from the assets and should, therefore, normally be on the opposite side of the account. Notes Payable, Accounts Payable, Mortgages Payable, Interest Payable, Rent Payable, and the like, have normally right-side balances. It follows, therefore, that all entries showing the assumption of liabilities are made to the right side of the account, and all entries showing the cancellation of these liabilities are made on the left side. Rarely are liability cancellations in excess of the liabilities owed.

In the net proprietorship accounts, i. e., those shown on the balance sheet, the balance is normally on the right side of the account. Increases are therefore recorded on the right and decreases on the left.

As will be explained in Chapter 8, in the group of accounts indicating decreases in proprietorship, the balance, or larger side, is normally on the left; in the group showing increases in proprietorship, the balance is normally on the right. Thus, the balances of the accounts, Wages, Salaries, Rent Expense, and all other expenses, are normally left-side balances. It follows, therefore, that entries showing the cost of such expenses to the business are made on the left side of suitably named expense accounts, and entries showing a cancellation of expenses are made on the right side, although entries of this kind are seldom met with. Items for wages, for example, are shown on the left side of the Wages

account, and any subtractions because of overpayment or for other reasons, are shown on the right side of the account.

The balances of the accounts, Rental Income, Interest Income, Commissions Earned, and other kinds of income, are normally right-side balances. From this it follows that entries showing income are made on the right side of a suitable account, and entries indicating a reduction or subtraction from the income shown are made on the left side of the account, although these entries are not often met with.

Knowing, therefore, to what main class each account belongs—asset, liability, or proprietorship—one always knows on which side the balance is normally, and also that the items on the opposite side are subtraction items. Subtraction can be shown in the account only by thus separating dissimilar items.

The Account Title Indicative of Its Classification.—The title given to an account is important. It should indicate clearly the content of the account. Accuracy is a basic necessity in accounting. Correct titles are, therefore, essential. A title which does not clearly and truthfully indicate the nature of the account, or one which is so chosen that under it may be recorded items of various and doubtful kinds, gives prima facie evidence of an imperfect knowledge of accounting principles or of a desire to hide data which will not bear close scrutiny. Therefore, care should be exercised in the selection of titles.

The account title or name should be so plain as easily to indicate its main classification. The three main classes of accounts are those relating to assets, liabilities, and proprietorship. The title of an account should clearly indicate the main group to which the account belongs. Thus the accounts, Cash, Accounts Receivable, Mortgages Payable, Accrued Wages, clearly show assets and liabilities; while those entitled Sales, Rental Income, Wages, Expenses, indicate factors affecting proprietorship.

Relation of the Ledger to the Balance Sheet.—The equation of the balance sheet is the equation of the ledger. The fundamental proprietorship equation is written in two ways:

(1) Assets − Liabilities = Proprietorship
(2) Assets = Liabilities + Proprietorship

The Ledger and the Balance Sheet

ASSET SECTION

Account	Debit	Credit
Cash	10,000	
Notes Receivable	5,000	
Accounts Receivable	50,000	
Merchandise	30,000	
Furniture and Fixtures	7,000	
Delivery Equipment	8,000	
Buildings	75,000	
Land	50,000	

LIABILITY SECTION

Account	Debit	Credit
Notes Payable		25,000
Accounts Payable		20,000
Mortgage Payable		60,000

PROPRIETORSHIP SECTION

Account	Debit	Credit
James Lovett, Capital		110,000

Proprietorship Increases (Income)

Account	Debit	Credit
Sales		200,000
Cost of Goods Sold	95,000	
Purchase Discount		4,000
Interest Earned		1,000

Proprietorship Decreases (Expense)

Account	Debit	Credit
Salaries	35,000	
Operating Supplies	20,000	
Sundry Expenses	9,000	
Repairs and Maintenance	10,000	
Depreciation	4,000	
Telephone and Telegraph	1,000	
Printing	3,000	
Sales Discount	3,000	
Interest Cost	5,000	

ASSETS = LIABILITIES + PROPRIETORSHIP

ASSETS

Cash	10,000
Notes Receivable	5,000
Accounts Receivable	50,000
Merchandise	30,000
Furniture and Fixtures	7,000
Delivery Equipment	8,000
Buildings	75,000
Land	50,000
TOTAL ASSETS	235,000

=

LIABILITIES

Notes Payable	25,000
Accounts Payable	20,000
Mortgage Payable	60,000
TOTAL LIABILITIES	105,000

+

PROPRIETORSHIP

James Lovett, Capital				
At beginning of Period				110,000
Add Income:				
Sales	200,000			
Less Cost of Goods Sold	95,000			
Gross Profit		105,000		
Purchase Discount		4,000		
Interest Earned		1,000		
Total Income			110,000	
Deduct Expenses:				
Salaries		35,000		
Operating Supplies		20,000		
Sundry Expenses		9,000		
Repairs and Maintenance		10,000		
Depreciation		4,000		
Telephone and Telegraph		1,000		
Printing		3,000		
Sales Discount		3,000		
Interest Cost		5,000		
Total Expenses			90,000	
Net Profit				20,000
TOTAL CAPITAL AT END OF PERIOD				130,000

Form 2.—Relation of Ledger to Balance Sheet

The ledger (that is, the accounts in the ledger) is constructed in accordance with the second form of the proprietorship equation. In it are found all the accounts of the business, which are included under the classes, Assets, Liabilities, and Proprietorship. Under Proprietorship are the sub-groups: (a) Initial Net Worth, or capital at the beginning of the period, and (b) Current Profit or Loss, i. e., Temporary Proprietorship. The Temporary Proprietorship is, in turn, shown by the two groups of accounts: (1) Income, and (2) Expense. This classification of the accounts and their relation to the balance sheet are illustrated graphically in the chart shown in Form 2.

The asset accounts have net left-side balances, as previously explained. Hence, if all the detailed accounts which record assets are brought together, the sum total of the left-side balances of these accounts will represent the total assets of the business. Liability accounts have right-side balances, as also explained. Therefore, if all the accounts that record the liabilities of the business are brought together, the sum total of their right-side balances will represent the total liabilities of the business. The proprietorship accounts have right-side and left-side balances. The *net total* of all the proprietorship accounts will be a right-side balance, however, and will show the present net worth of the business.

Accordingly, when one views the accounts in the ledger in their fundamental groupings—namely, assets, liabilities, and proprietorship—it is seen that the equation of the balance sheet is also the equation of the ledger. In this sense the ledger is the balance sheet. The account is thus seen to be an integral part of the balance sheet. It is so arranged, however, as to sort and accumulate additions and subtractions and to furnish a net result for use in the balance sheet.

The asset portion of the proprietorship equation is, in the ledger, broken up into the various kinds of assets, record of which is desirable and necessary for purposes of adequate control of the business. One section of the ledger is devoted to the asset accounts. In keeping the record, all the transactions affecting—that is, either adding to or subtracting from—a given asset are recorded in the account kept with that asset. In this way each account brings

about a sorting of the transactions affecting it. It separates these transactions into two kinds, those which add to and those which subtract from its value, and by means of its net balance at any given time it summarizes the numberless transactions which have affected it during a period and gives a net result showing its present status.

In much the same way the liability item of the proprietorship equation is broken up in the ledger for purposes of detailed information, into a large number of individual liability accounts, and one section of the ledger is devoted to them. The sum total of the balance of these accounts is the liability item of the proprietorship equation.

The proprietorship section of the equation is a little more complex when split up, as it is in the ledger. In accordance with the chart given in Form 2, it will be seen that proprietorship is classified under the two main groups: (1) capital at the beginning of the period, and (2) changes of capital during the period. It is this latter group of accounts which, as they are carried in the ledger, have both right-side and left-side balances. The income accounts, which tend to increase capital and which, when merged with the capital accounts at the beginning of the period, add to that capital, have right-side balances. The accounts which tend to decrease capital, that is, the expense accounts, because they are subtraction items, have left-side balances. The net increase (or decrease) in capital for the period is the excess (or deficit) of the total income accounts over the total expense accounts. The summarized result, therefore, of current changes in capital added to the capital at the beginning of the period, gives the proprietorship of the business at any given time.

At the beginning of a business enterprise, the accounts in the ledger will be an opening balance sheet of the business. Day by day, as transactions take place, there will be a constant change in the values of the assets, liabilities, and the proprietorship accounts which will thus express the changing financial condition of the business. Some assets will be increased while others will be decreased; liabilities will also change; and with these changes there will be brought about a change in proprietorship—an increase or a decrease. The ledger must record these changing values as

they take place, so that the condition of the business can be determined at almost any time.

The ledger is thus seen to contain and comprise the balance sheet of the business at all times. Certain groupings, summarizations, and adjustments may be necessary before a balance sheet technically correct as to form and content can be taken from the ledger, but the fundamental balance sheet equation is always contained in the ledger. This is pictured graphically in the chart shown in Form 2. A further consideration of the relationships between assets, liabilities, and proprietorship leads us to an explanation of the principles or philosophy of debit and credit, a matter which will be taken up in the next chapter.

CHAPTER 7

THE PHILOSOPHY OF DEBIT AND CREDIT

Double-Entry Bookkeeping.—Several systems or methods of keeping business records have at various times been in use. The method which at the present time is used by all businesses—excepting those of the simplest sort—is called "double-entry bookkeeping" and is the method which is being developed here. It is based on the proprietorship equation expressed in the form: Assets = Liabilities + Proprietorship. It is possible to make a balance sheet if only asset and liability records are kept, because proprietorship is always the difference between them. Such a system of record-keeping would fail completely in giving the information as to the current increases and decreases in proprietorship and the causes of such changes. The information which is given by the profit and loss records of the business would be entirely lacking.

Double-entry bookkeeping, accordingly, keeps a record not only of assets and liabilities, but also of proprietorship and its constantly changing value. The advantages of such a system were discussed when the need for the information furnished by the profit and loss statement was pointed out (see page 39). Not only does double-entry bookkeeping give this full and complete information, but it ties this information into a system whose mathematical accuracy and correctness can be proved. It is an invention or device whose purpose is definitely to give the desired information and to demonstrate the mathematical correctness of that information.

As already stated, the system of double-entry bookkeeping is based on the proprietorship equation. An equation is an expressed equality. The ledger kept by double-entry bookkeeping always maintains this equality. The sum total of the entries on the left side of all the accounts must equal the sum total of the entries on the right side of the accounts. The way in which the ledger becomes an expanded or detailed balance sheet was explained fully in the previous chapter. There it was shown that the sum

of the net balances of all asset accounts, as carried in the ledger with left-side balances, at all times equals the sum of the net balances of the liability and the proprietorship accounts carried in the ledger with right-side balances.

It is evident that, if in place of the net balances of each group of accounts, the gross left- and right-side totals are substituted, the equation will still be maintained, inasmuch as the net balance in each instance is secured by subtracting the same amount, namely, the lesser total, from both sides of the account.

Under double entry, therefore, the equality of the left side of the ledger, that is, the total of the left-side amounts of all of the accounts, is constantly maintained with the right side of the ledger, that is, the total of the right-side amounts of all the accounts. The vertical division of the ledger separating accounts into their left and right sides, may be considered an equality sign, which thus makes one big equation out of all the accounts in the ledger. Under double-entry bookkeeping, therefore, the principles of entry in the ledger are based on no logic or philosophy other than that which attaches to the fundamental proprietorship equation of the balance sheet. Double entry is an invention, a device, and its use requires adherence to the principles of entry necessary to maintain its equation. What these principles are will now be explained.

The Business Transaction Defined.—Reference has constantly been made to business transactions. A business transaction may be defined as an exchange of values, i. e., a happening or event in the course of business operation which brings about a change in the values of the items or totals of the basic groups, assets, liabilities, and proprietorship. It may be between persons, as when a sale is made, or it may be between accounts within the business itself, as when a transfer is made between accounts, i. e., when an item is taken from one account and transferred to another for the sake of more clearly showing its nature. Some authors further analyze transactions as *complete* when the bargain is fully consummated between the parties, as when delivery is made and the money is paid in cash; or *incomplete* as where something still remains to be done by either or both parties to the transaction. In this latter case, claims or rights of action at law arise to protect

the parties until the transaction is consummated. But, since from the accounting standpoint a claim or right is one kind of property or asset, there is little need of this finer analysis.

Analyzing the Transaction as to Its Accounting Record.—When a transaction occurs in a business, before proper record can be made of it, it must first be classified under the account title which groups transactions of a like nature. Its elements must be analyzed, its effect on assets and liabilities, or on expenses and income, must be determined. Has the transaction increased or decreased assets or liabilities, or has it increased or decreased proprietorship, or has it resulted in simply a transfer between accounts—these are the first questions to be answered. The basis of all fundamental classifications is the effect of the transaction upon the balance sheet and profit and loss statements. They are the goal toward which all records look, and all record-making must be in accord with the mathematical principles of the basic proprietorship equation. After having determined the effect of the transaction on the main groups, assets, liabilities, and proprietorship, a further analysis will show which of the detailed accounts have been affected. The principle which determines the subdivisions in the main classes of accounts and the titles to be given to the accounts which are to be carried in the records, is the amount and kind of information desired by the management throughout the fiscal period. After the transaction has been properly classified, it is merely a matter of recording it according to the methods or forms of good accounting. This is merely a device for abbreviating the work of recording, i. e., the transaction is translated into correct accounting language.

The Use of Debit and Credit.—To show the side of the account affected by a transaction, the words "debit" and "credit" are used, indicating left and right respectively. These terms were used originally to describe the record of transactions between persons and the accounts kept with them. The person owing was charged or debited, while the person to whom the business owed a debt was credited. Through use the terms have come to have the meaning stated first above, though still retaining their original connotation when applied to persons.

Fundamental Principle of Debit and Credit.—As stated in Chapter 6, every transaction is recorded from two viewpoints, viz., its effect on any one of the basic groups, assets, liabilities, and proprietorship, and the corresponding or offsetting effect on the other group or groups. The necessity of recording this offsetting effect is inherent in the equation, Assets = Liabilities + Proprietorship. It is apparent that a change in the value of any term of the equation brings about an equal change in one or both of the other terms, else the equation is not maintained. Sometimes, however, the transaction may require merely a transfer entry, i. e., a transfer of an amount from one account to another, both these accounts belonging to the same basic group, the total of which is thus not changed. If it is remembered that from long-continued custom asset accounts are debit accounts, i. e., normally have debit or left-side balances, and liability accounts are credit accounts; that expense accounts are debit and income accounts are credit, the fundamental principles for determining the debit and credit involved in every transaction become pretty well established in one's mind.

Starting, therefore, with the original investment, whatever form it may have, the transaction is reducible to the fundamental equation:

$$\text{Assets} = \text{Liabilities} + \text{Proprietorship}$$

in which "liabilities" may or may not be a "zero" quantity, depending on the nature of the investment. All transactions thereafter must be viewed according to their effects on the three terms of the equation above. We may summarize the effects produced by the various transactions of the business as:

1. Increase or decrease of assets,
2. Increase or decrease of liabilities,
3. Increase or decrease of proprietorship,

with this qualification, referred to above, that some transactions result in transfers only without affecting the totals of any of these three groups. Thus when a customer pays his bill, the claim against him is decreased but the asset, Cash, is increased by an equal amount, the total assets, however, remaining unchanged.

The Debit and Credit Schedule.—Bearing in mind the customary distinction between debit and credit, and the fact that entry of a transaction is always made from a double viewpoint—that of cause and effect—every transaction may have its debit and credit determined by the following schedule:

Debit:	*Credit:*
(1) Increase of Assets	(a) Decrease of Assets
(2) Decrease of Liabilities	(b) Increase of Liabilities
(3) Decrease of Proprietorship	(c) Increase of Proprietorship

This schedule is all-inclusive, covering even the most complex transactions. Thus, if the debit analysis of a transaction shows, (1) an increase of assets, the offsetting credit analysis may be either (a), (b), or (c), or any combination of them. It must be evident, therefore, how complete the schedule is.

Debit and Credit Determination Illustrated.—Examples illustrating the various classes of transactions and the manner of determining their debit and credit will now be given. The student should strive to understand the double point of view necessary in determining debit and credit. It is perhaps well to call attention to the fact that the illustrations are entirely unrelated, i. e., do not constitute a sequence of events in any business. It should also be kept in mind that transactions are recorded always from the standpoint of the business whose records are being kept.

1. *The purchase of merchandise for cash.* The result is an increase of the asset, Merchandise, offset by a decrease of the asset, Cash. Accordingly, the debit and credit of the entry for the transaction are shown by the above schedule under (1) and (a), i. e., debit Merchandise and credit Cash. The transaction is also an illustration of the transfer entry, in which there is no increase or decrease of the group totals of assets, liabilities, or proprietorship.

2. *The purchase of merchandise on account.* This results in an increase of assets offset by an increase of liabilities. The schedule above shows under (1) and (b) a debit to Merchandise and a credit to the personal account payable, indicated by the name of the creditor.

3. *The receipt of cash for services performed.* For example, a broker receives the amount of his commission in cash. The result here is an increase of the asset, Cash, offset by an increase of proprietorship, as the performance of services is the chief source of the broker's income. The schedule shows under (1) and (c) a debit to Cash and a credit to some temporary proprietorship account by name, such as Commissions Earned.

4. *The payment of a note payable in cash.* This results in a decrease of the liability, Notes Payable, offset by a decrease of the asset, Cash. Accordingly, debit Notes Payable and credit Cash, (2) and (a).

5. *The settlement of a personal account payable by giving a note payable.* The effect here is simply a cancellation of one kind of liability with another kind; it is a transfer entry. Debit the personal account payable; credit Notes Payable, (2) and (b).

6. *The rendering of a business service to a creditor.* This cancels a part or all of the indebtedness to him. Thus a physician may render medical aid to his druggist from whom he has purchased supplies on credit. The effect is a decrease in liabilities and an increase in proprietorship. Debit the personal account payable, by name, and credit some temporary proprietorship account, by name, as Fees or Services, (2) and (c).

7. *A workman is paid his wages in cash.* The result is a decrease in proprietorship and a decrease in the asset, Cash. Wages are a cost of doing business and therefore decrease proprietorship. They are a service rendered to the business instead of by it—an expense as distinguished from an income. Debit the temporary proprietorship account, Wages, and credit Cash, (3) and (a).

8. *The bill for electric light and power comes due but is not paid.* An analysis shows a decrease of proprietorship, for the service rendered the business, and an increase in liabilities. Debit Light and Power Expense and credit the personal account payable of the electric light company, (3) and (b).

9. *John Doe, the owner, sells a half-interest in his business to Richard Roe.* The result is a simple transfer, causing a decrease in proprietorship as shown in John Doe, Capital account, offset

by an equal increase in proprietorship as shown in the Richard Roe, Capital account. Debit John Doe, Capital and credit Richard Roe, Capital, (3) and (c).

In a similar manner, all transactions may be analyzed and their entry in the accounts determined.

Necessary Equilibrium of Debits and Credits.—Before passing to more detailed rules for debit and credit, the necessary equality of debits and credits should again be pointed out. Starting with the proprietorship equation expressed in this form: Assets = Liabilities + Proprietorship, of which the left side is represented in the accounts by debits and the right side by credits, the equality of the debit balances and the credit balances of the accounts in the ledger is readily seen. If, now, for all succeeding transactions an entry is made having an equal debit and credit, evidently the equilibrium of the total debits and credits in the accounts is maintained and the two sides of the ledger are in agreement. The making of an equal debit and credit for every entry is fundamental and must be strictly observed.

Series of Related Transactions Recorded.—To give a more concrete idea of the bookkeeping record of a business, a small group of transactions is listed below, followed by a debit and credit analysis of them and then by the ledger record. The student should trace the equal debits and credits by the transaction number which is used as a cross-index number in the accounts affected.

1. George Carver begins business with a cash investment of $10,000. (Debit Cash; credit George Carver, Capital.)
2. He pays one month's rent for a store room, $250. (Debit Rent; credit Cash.)
3. He buys for cash, furniture and fixtures, $3,000. (Debit Furniture and Fixtures; credit Cash.)
4. He buys a delivery wagon on credit from James Nivens, $1,000. (Debit Delivery Equipment; credit James Nivens.)
5. He buys merchandise on credit from C. W. Stivers & Co., $5,000. (Debit Purchases; credit C. W. Stivers & Co.)
6. He makes cash sales of $4,000. (Debit Cash; credit Sales.)
7. He pays salaries, $500 in cash. (Debit Salaries; credit Cash.)
8. He pays general expenses, $1,000, in cash. (Debit General Expense; credit Cash.)

9. He pays C. W. Stivers & Co. $2,500 on account. (Debit C. W. Stivers & Co.; credit Cash.)
10. He gives James Nivens his note for $1,000 in full settlement of his debt. (Debit James Nivens; credit Notes Payable.)

The ledger[1] record of the above transactions follows:

Cash

(1)	10,000	(2)	250
(6)	4,000	(3)	3,000
		(7)	500
		(8)	1,000
		(9)	2,500

George Carver, Capital

		(1)	10,000

Furniture and Fixtures

(3)	3,000		

Sales

		(6)	4,000

Delivery Equipment

(4)	1,000		

Purchases

(5)	5,000		

Notes Payable

		(10)	1,000

Salaries

(7)	500		

James Nivens

(10)	1,000	(4)	1,000

Rent

(2)	250		

C. W. Stivers & Co.

(9)	2,500	(5)	5,000

General Expense

(8)	1,000		

The student should trace carefully the record of the debits and credits of the above transactions and satisfy himself that the ledger record is an equation.

[1] The accounts used in this illustration are informal and are called "T" accounts because shaped somewhat like the letter "T."

CHAPTER 8

THE APPLICATION OF DEBIT AND CREDIT

Student's Use of Working Rules.—In order to indicate the types of transactions which affect the asset, liability, and proprietorship accounts, a set-up of some of these accounts will be given and under them will be shown the usual kinds of transactions which are recorded as debits and those recorded as credits. In the accounts given as guides it is apparent that only the part of the double-entry record applying to that account will be shown. Although the offsetting entry is not shown, the student should always supply it mentally so that he will have a picture of the complete record of each illustrative transaction. For the sake of clarity, the personal pronouns "we" and "us" will be used instead of the impersonal name.

Accounts with Cash and Notes Receivable.—Entries to the Cash and Notes Receivable accounts are comparatively simple and are shown in the following schedule:

(Name of Account)

Debit:	*Credit:*
(1) For all increases, i. e., receipts or incoming items.	(a) For all decreases, i. e., disbursements or outgoing items.

Transactions with cash are self-explanatory. The Cash account will record checks as well as coin of the realm, for checks received and issued serve as cash.

The Notes Receivable account requires some explanation. When in the course of business we receive a note, Notes Receivable is debited and the person who gives it is credited, because our asset Notes Receivable is increased and the claim against the open account of the person giving the note is decreased. Similarly, when that note is disbursed by us, i. e., goes out of our possession, the asset is diminished and therefore Notes Receivable is credited.

A note receivable can be disposed of in several ways:

1. Through its release on payment by the maker.
2. Through its transfer by us to another person in settlement of a claim against us.
3. Through its sale to the bank.

When a note is paid by the maker, we return it to the maker as a receipt. Cash is debited and Notes Receivable account is credited. In case 2, the liability canceled or decreased is debited, and in case 3, Cash is debited. In case 3, entry will also be made in the Interest account for the charge made by the bank for discounting. In both cases 2 and 3, instead of making the offsetting credit direct to the asset account Notes Receivable, it is better carried to a supplementary account, Notes Receivable Discounted, in order to show the liability arising from the fact that, through our indorsement, we guarantee to pay the note at its maturity in case the maker fails to do so. This method is later explained in detail; for the present enter such transactions as credits to Notes Receivable account.

Accounts with Customers.—The usual entries made to accounts with individual customers are shown below.

(NAME OF CUSTOMER)

Debit:	*Credit:*
(1) For amount he owes us at beginning.	(a) For money he pays us on account.
(2) For goods we sell him on account.	(b) For notes he gives us on account.
	(c) For goods he returns to us.
	(d) For discounts we give him.
	(e) For claims we allow him.

The balance owing us by a customer is an asset, and therefore a debit item.

Goods sold on account are charged to the customer because our claim against him constitutes an asset; at the same time the account, Sales, is credited.

When a customer pays us on account, his account is credited and Cash is debited, showing an increase of the asset Cash and a

decrease of the asset Accounts Receivable. Such an entry is simply a transfer from one account to another, an increase of one asset offset by a decrease of another asset.

When a customer gives us his note, his account is credited and Notes Receivable is debited.

When a customer returns goods to us, he is credited to decrease the original charge to his account and Sales or Returned Sales is debited to reduce the amount originally credited to Sales. It is not necessary to make any other record of the returned goods. Since the Sales account records the amount of the decrease of the merchandise asset—as well as the profit on the sale—it is evident that the debit to Sales, or to Returned Sales, account reduces the amount by which the merchandise asset was decreased at the time of the sale and therefore brings back into the merchandise asset account the amount of these returned goods. This increase in merchandise brought about by the return will, of course, be reflected in the physical inventory taken at the end of the fiscal period.

When a customer is allowed a discount for the early payment of his bill, he is credited to reduce the original charge by the amount of the discount, and some temporary proprietorship account, as Discount on Sales, is debited to show the decrease in proprietorship resulting from the allowance of the discount.

When a customer is allowed a claim for reduction in his bill on account of damaged goods or the like, the entry is similar to the one next above—debit Sales Allowances and credit the customer.

The Merchandise Inventory Account.—The merchandise inventory account records the value of the merchandise asset unsold at the end of a given fiscal period. The entry setting up the inventory is a simple one and appears as a debit in the account shown below.

Merchandise Inventory

Debit:	*Credit:*
(1) For merchandise on hand at the end of period.	(a) For transfer at close of next fiscal period to summarize for purpose of computing the cost of goods sold.

The offsetting credit to this debit is to the Cost of Goods Sold account, the effect of the double entry being a transfer of the merchandise asset from Cost of Goods Sold to Merchandise Inventory account. It is, of course, understood that this final inventory of the current period becomes the initial inventory of the new period and will at the close of the new period be used in computing the cost of goods sold. For this purpose, this initial inventory will be transferred back to the Cost of Goods Sold account. The entry effecting this is a debit to Cost of Goods Sold account and a credit to Merchandise Inventory account. This credit to Merchandise Inventory account balances that account and so prepares it for the new inventory, i. e., the final inventory at the close of the new period, which will be set up as explained above.

The handling of the whole group of transactions connected with the buying and selling of merchandise is rather complicated and is reserved for full treatment in the next chapter.

Accounts with Fixed Assets.—The usual accounts with fixed assets are those with land, buildings, equipment of all sorts, and other similar items.

(Name of Account)

Debit:	*Credit:*
(1) For full cost to the business in position ready for use.	(a) For sale or loss, at cost price.

The debit to this account is not for invoice or first cost only, but should include all expenditures necessary to secure full title or to place the equipment in position for use by the business, such as abstract of title costs, freight, drayage, and, in the case of machinery, setting-up and placement costs. The corresponding credit is usually to Cash, or to Notes or Accounts Payable.

The account is credited for the sale of all or a portion of the asset at the same price at which it was originally charged, so that the balance in the account shows the pro-rata cost of the part left. A loss from fire or otherwise is treated similarly. If the asset is sold at a profit (an unlikely occurrence), the account is credited with its cost price, while the excess of the sale price over the

cost price is credited to a proprietorship account, such as Profit on Sale of Machinery. The debit corresponding to these two credits is usually to Cash or some other asset received in payment. Where the asset is sold at a loss, the account is credited with: (1) the sum received, and (2) the difference between this sum and the cost of the asset, which difference represents a loss. The loss or deficiency is debited to a proprietorship account, such as Loss on Sale of Machinery, and the additional debit is to Cash or some other asset received. This latter debit amount plus the debit to Loss on Sale of Machinery must, of course, equal the two amounts credited to the fixed asset account and representing the cost of the asset sold.

Fixed asset accounts are further considered in Chapter 9, where the manner of recording loss through depreciation is shown.

Accounts with Notes Payable.—When we issue our own note, the credit is to Notes Payable and the debit is either to the liability account reduced or to the asset account increased. When we call the note in, either by paying it or by cancelling our claim against the person returning the note, Notes Payable is debited and Cash or the person returning the note is credited.

Accounts Payable.—

(Name of Creditor)

Debit:	*Credit:*
(1) For money we pay him on account.	(a) For amount we owe him at beginning.
(2) For notes we give him on account.	(b) For goods he sells us on account.
(3) For goods we return to him.	
(4) For discounts he gives us.	
(5) For claims he allows us.	

As will be noted by reference to the customer's account, the entries to the creditor's account, being viewed from the opposite standpoint, are exactly the reverse of the entries to the customer's account. No comment on them is, therefore, necessary.

Other Liability Accounts.—Accounts with other liabilities, such as Mortgages, Bonds, Expenses Payable, and the like, follow in the main the general principles laid down (pages 78 to 80).

Specific treatment will be given them as they are met in the discussion. In the case of long-time notes payable supported by mortgages, record should be made under the title "Mortgages Payable" rather than "Notes Payable."

Proprietorship Accounts Defined.—Proprietorship accounts are the accounts which record the effects, both temporary and ultimate, of business transactions upon proprietorship. In previous chapters it has been made clear that transactions which involve the receipt of income or the payment of expenses result respectively in an increase or decrease of proprietorship, and that these increases or decreases are temporarily recorded in suitable income and expense accounts until the close of the fiscal period, at which time the accounts are summarized to determine the net effect of all transactions upon proprietorship or the capital invested in the business. Therefore, the proprietorship accounts are of two general kinds: temporary and vested. Temporary proprietorship accounts make temporary and immediate record of the results of the agencies or forces at work within the business to produce a profit. They set forth the efforts to increase the net worth of the business. They record the costs of the effort and its yield in earnings, the record being made under appropriate titles to show the kind of cost and the source of the yield. Vested proprietorship accounts show the net capital investment after adjustment by the amount of the net results of current operations. They therefore record the original investment and its subsequent *net* increases and decreases.

Fundamental Consideration of Proprietorship Debits and Credits.—Income and expenses comprise the temporary proprietorship items which by summarization show their ultimate effect upon vested proprietorship. In other words, they are proprietorship items set up temporarily to furnish detailed information for aiding in efficient management and control and are later transferred to the ultimate or vested proprietorship records. Since, from the mathematical necessity of the proprietorship equation, proprietorship items normally have credit balances, it is evident that all income, or earnings, must be placed on the credit side of their appropriate accounts. Cost of management and all expenses of

operation are deductions from that income and must therefore be recorded on the left or debit side of appropriately named accounts.

Income Debits and Credits.—With regard to their debits and credits, income accounts follow this rule:

INCOME (under appropriate titles)

Debit:	*Credit:*
(1) For all deductions from the yield shown contra.	(a) For the yield.

Income accounts normally have entries only on the credit side. They are debited, however, for the purpose of deducting from the yield shown on the credit side, (1) because of overstatement of the amount of the yield in the first place; (2) because of error in the original placing of the item of income, which is now transferred to its proper account; and (3) for the purpose of summarizing when it becomes necessary to transfer all income and expense items to one summary account. The entries made for the purpose of summarization are usually called "closing" entries.

Expense Debits and Credits.—With regard to their debits and credits, expense accounts follow this rule:

EXPENSE (under appropriate titles)

Debit:	*Credit:*
(1) For the cost.	(a) For all deductions from the cost, shown contra.

Expense accounts normally have entries only on the debit side. Their credits are for purposes similar to the debits to income accounts as stated just above.

Examples of the more common temporary proprietorship items can be found in Chapters 4 and 5, where the profit and loss summary is treated.

Vested Proprietorship Debits and Credits.—Two accounts should be kept on the ledger with the proprietor, a capital and a personal account, e. g., "John Doe, Capital" and "John Doe, Personal." The Capital account records the original investment or the amount of capital now in the business as shown by the last

balance sheet. The Personal account shows all *current* changes made in the capital during the fiscal period either through withdrawal or the additional investment of funds or properties, such changes being merely incidents in the day-to-day operation of the business, without any intent to effect a definite change in the capital status. The Capital account, therefore, usually shows no change until the close of the fiscal period, when the increase or decrease in net worth is transferred to it. An exception to this is sometimes made when there is evident intention to withdraw during the period some of the invested capital, in which case such withdrawal is shown in the Capital account as a debit or subtraction item. Also, if there is evident intention to increase the investment during the fiscal period, record of it is usually made in the capital account. Practice in this regard is not uniform, however.

The ordinary transactions with the proprietor, such as the more or less regular withdrawals of cash or goods and other similar transactions, are recorded in his Personal account. This is his *current* account as distinguished from his more permanent Capital account. Profits are accruing day by day although the amount of such profits is not definitely known until summarized at the close of the fiscal period. The more or less regular withdrawals by the owner are really withdrawals of these accruing profits, which when determined will be set up in the proprietor's Personal account. This account will then show by its balance the part of the net profit left in the business as an addition to the permanent capital investment. The balance of the Personal account is, therefore, usually transferred to the Capital account. Both of these accounts may be termed vested proprietorship accounts. Their debit and credit schedule appears as follows:

(Name of Account)

Debit:	*Credit:*
(1) For amounts or values withdrawn.	(a) For amounts or values invested.

The capital account usually shows only one item throughout the period until its close; the personal account shows both debits and credits, made according to the above schedule. The personal account ordinarily shows transactions of the following kind: on

the debit side, withdrawals in funds or goods, the payment or assumption by the business of the personal debts of the proprietor, and his retention of any funds or properties belonging to the business, such as collections from customers; on the credit side, the investment in the business of any funds or properties, the retention by the business of any funds or properties belonging to the proprietor, as where the business collects and retains a debt due him personally, and the payment or assumption by him personally of any debts of the business.

The above explanation of vested proprietorship accounts has been related to the single-owner type of business. In a partnership, two accounts are kept with each partner, i. e., a Capital and a Personal account. These are handled in much the same way as indicated above, some changes, however, being indicated in later chapters relating to partnerships. In a corporation the vested proprietorship accounts are usually the Capital Stock account and the Surplus account, although some other accounts are at times properly to be included. This matter is more fully treated in later chapters dealing with the corporate form of business organization. In the handling of these accounts for a corporation, certain peculiarities are met—arising chiefly out of the legal status of the corporation—which are also best deferred for later treatment.

Further Consideration of Expense Items.—In explaining the debits to fixed asset accounts, it was pointed out that all costs necessary to place the asset in position for use by the business constituted a part of the value of the asset and should be recorded in the asset account. Similarly, it was explained that in the Merchandise account there was included as a part of the value of the merchandise all the costs incident to putting the merchandise in position for sale by the business. Costs of this kind are classed as incoming costs and are almost without exception treated as additions to the value of the asset. The costs incurred from this point on, in the course of business operations, are classed as expenses or proprietorship decreases.

It might sometimes appear that all these operating costs—the kind shown in the profit and loss statement—also add to the value

of the assets of the business. While this may be true in general, the values added are so uncertain and so impossible of allocation to any definite assets, that the universal practice is to record such costs as costs of operation and not costs of any specific assets. In a mercantile concern, business is conducted for the purpose of selling merchandise. Profit arises through the purchase of merchandise at one price and its sale at a price sufficiently higher to pay for all operating expenses and leave a margin. The price charged the customer for the merchandise reimburses the proprietor for his original outlay for merchandise and for a fair portion of the operating expenses incident to the maintenance of the store. The customer is willing to pay this additional amount because it is cheaper for him to pay the merchant a margin over the cost of the merchandise, sufficient to induce the merchant to conduct a market for merchandise, than to undergo the necessary expenditures—of time, expense, and inconvenience—entailed in making the purchase from the original vendor.

The economic organization of business is based on this hypothesis. In the management of a business there is a very large element of risk. The sale price of commodities at a given time is not always determined on the basis of the original cost of the commodity plus the costs of maintaining a store for its sale. Competition sometimes enters in to drive the price down below this amount. While every merchant *expects* in the long run to receive from the sale of his merchandise not only what he himself has paid for it but also the cost of conducting his store and a fair margin of profit, for a given period and for a given item of merchandise he may not be so fortunate.

In recording business transactions, therefore, prudence demands that the costs of operating the business be not recorded as increases in the value of the merchandise dealt in, but rather that they be set up separately and charged against the income received from the sale of the merchandise before the increase (or decrease) in the value of the assets is determined and made a part of the asset record. As merchandise is converted into cash the amount received is recorded as an increase in the asset, cash. This cash includes the original cost of the merchandise plus some of the costs of operating the business. These are costs which must be

incurred and, in a sense, they add value to the business as indicated by the usual willingness of the customer to pay the merchant for them. Because the added value is problematical at the time the costs are incurred, they are recorded as expenditures which must be made good out of the sale of the merchandise at a sufficiently enhanced price to cover them, i. e., they are *expenses* which are to be treated as deductions from sales income.

The net difference between the income and the cost of securing the income, as indicated by the expense accounts, will represent the value added to the assets of the business, and will therefore be reflected tangibly in an increase in the value of the assets by that amount. This increase will usually be reflected either in the cash holdings or in claims against customers.

It may not be out of place at this point to call attention to the fact that, as the bookkeeping record is usually handled, the only relationship between asset increases, liability decreases, and expenses (proprietorship decreases) arises from the fact that all of them are debits and are so placed because of the mathematics of the fundamental equation on which double entry rests. Assets, liabilities, and proprietorship are three distinct and separate groups of accounts related only by the logic of the proprietorship equation. As the subject of accounting is developed the student will see the increasing importance of drawing sharply the lines of division among these groups and he will see also the difficulty at times of maintaining this distinction.

CHAPTER 9

MERCHANDISE AND OTHER MIXED ACCOUNTS

Basic Classification of Accounts.—A three-fold classification of accounts is absolutely essential to the making of a balance sheet and, therefore, to the keeping of the accounting records from which the balance sheet is made up. The balance sheet must give a clear separation of assets, liabilities, and proprietorship. Therefore, in the recording of business transactions, methods should, wherever possible, be devised to make and maintain this separation. Some difficulties encountered in so doing will be treated in this chapter.

The Record of Merchandise.—The buying and selling of merchandise constitute the major activity in all mercantile businesses. The kinds of merchandising information needed by the proprietor of a mercantile business have already been indicated by the statement of profit and loss. The merchandise inventory, giving the value of the goods on hand, is needed in order to draft a balance sheet. The amount of purchases made during the period is important as a means of controlling or preventing too large a portion of the capital to become tied up in merchandise. Information as to sales volume is considered of first importance as it is the basis for comparison of all other activities of the business. The relationship between sales and cost of goods sold, gross profit, the main items of operating expenses, and the net profit, are used as guides in controlling the operating activities of the business. Even information relative to sales returns and allowances, purchase returns and allowances, and inward carrying charges on merchandise bought, is usually of sufficient value to require keeping a separate record of each.

Goods are bought at one price and sold at another price, thus securing a profit—or a loss. The sale price includes the cost price of the article and, in addition, the margin of gross profit. Thus, in it there are two separate elements, the one representing a decrease of the asset, merchandise, and the other the profit, the

increase of proprietorship. When, therefore, in making the record an account is kept with Merchandise Sales, that account becomes a *mixed* account, for in the one amount of the sale are included the two different basic elements referred to above.

When, also, an account is kept with Merchandise Purchases to record the acquisition of the asset, merchandise, inasmuch as no credit is entered in that account when the asset is decreased by sale—the credit being recorded in a separate Merchandise Sales account—the Merchandise Purchases account is not then a true statement of the merchandise asset on hand.

The Record of Merchandise on Hand.—It is apparent that, in order to keep a record of merchandise on hand at all times, it is necessary to know the cost of goods sold. When the cost of each article sold is known at the time of the sale, the Merchandise Purchases account may be credited with this cost price, constituting the amount of the decrease of the asset, merchandise, and a new account, Cost of Goods Sold, may be debited with the same amount. The balance of the Merchandise Purchases account will thus show at any time the merchandise on hand. The Cost of Goods Sold account, being a debit account, is an offset to the Merchandise Sales account which, of course, is a credit account. The difference between the two is the gross profit or proprietorship increase resulting from the sales transaction. An illustration, using the following data, will make this clear:

1. Purchases	$75,000
2. Sales	80,000
3. Cost of goods sold.......	55,000

The three accounts will show as below.

MERCHANDISE PURCHASES

(1)... 75,000.00	(3)... 55,000.00

MERCHANDISE SALES

	(2)... 80,000.00

COST OF GOODS SOLD

(3)... 55,000.00	

The Purchases account shows by its balance $20,000, the amount of merchandise on hand, while the debit side by itself shows the amount of purchases: Sales account, by itself, gives the volume of sales; and the difference between Sales and Cost of Goods Sold, $25,000, shows the increase of proprietorship, i.e., the gross profit.

Objections to the Current Record of Cost Price Method. The above method of recording merchandise transactions is based on the assumption that as each sale is recorded by debiting Cash or Customer and crediting Sales, an entry is also made covering the cost of the goods sold, this comprising a debit to Cost of Goods Sold and a credit to Purchases. This method maintains after every sales transaction a clear separation of the sales element into its two parts, asset decrease and proprietorship increase. There is no mixture of basic elements.

There are, however, several objections to this method from a practical standpoint. The full cost of merchandise bought includes the costs of laying the merchandise down at the place of sale. Freights and other incoming charges are usually paid in lump sum covering an entire order or shipment. It is frequently difficult to spread or allocate this freight charge equitably to each *unit* of product bought. This makes it difficult to determine a real unit cost of goods sold. Furthermore, the "record of cost price" method may otherwise be quite inaccurate. Over or under-weight of goods sold will make the record inaccurate. In the event of over-measurement, the *actual* inventory on hand will be less than that indicated by the balance of Merchandise Purchases account because that account has not been credited with a cost of goods sold commensurate with the amount of the over-measured sale. Again, the theft of merchandise by salespersons or customers will not be recorded on the books. While often used, the method is at best an approximation which must, however, be verified and checked periodically. For these reasons the majority of merchants make use of the method of the physical inventory, taken usually at the close of each fiscal period.

The Record of the Physical Inventory.—Under the method of the physical inventory, the amount of goods on hand is not

recorded currently on the books—only when the inventory is taken. An explanation of the physical inventory as a means of determining the cost of goods sold was given in Chapters 4 and 5. The method of the physical inventory consists of an actual count or measurement of the number of units of the various kinds of merchandise on hand, usually at the end of the fiscal period, and a determination of the unit and total value of this merchandise. The value of this final inventory deducted from the total value of goods available for sale, comprising opening inventory plus purchases, gives the cost of goods sold. To effect these additions and subtractions, a fuller use is made of the Cost of Goods Sold account. To the debit side of this account are transferred the opening inventory from the Merchandise Inventory account (see page 85) and also the amount of purchases shown by Merchandise Purchases account. These transfer entries are, of course, entered on the credit sides of these accounts and so balance them. The Cost of Goods Sold account will now show on its debit side the total value of goods available for sale. Of these goods a certain amount, i.e., the value of the final physical inventory, is still on hand. This is subtracted by entry on the credit side of the Cost of Goods Sold account, the offsetting debit being to Merchandise Inventory account. The balance of Cost of Goods Sold account now represents *the cost of goods sold.* As explained above, this account offsets the Merchandise Sales account and thus determines the gross profit or true *income* element of the sales transactions. An illustration, based on the following data, will indicate the method of handling these accounts.

1. Initial inventory	$ 15,000
2. Purchases	110,000
3. Sales	145,000
4. Final inventory	20,000

The accounts below show the set-up and handling of the data.

Merchandise Inventory account shows the asset now on hand, $20,000, and Cost of Goods Sold account, with a debit balance amounting to $105,000, serves as an offset to the Merchandise Sales account and so determines the amount of gross profit, here $40,000 (sales, $145,000, minus cost of goods sold, $105,000, equals $40,000).

Under this method, the Cost of Goods Sold account is not an account of current day-to-day entry, it being used only at the close of the fiscal period when the physical inventory is taken. Also, throughout the period there is no record on the books of the amount of merchandise on hand, the mixture of merchandise

Merchandise Inventory

(1)... 15,000.00	(a)... 15,000.00
(c)... 20,000.00	

Merchandise Sales

	(3)...145,000.00

Merchandise Purchases

(2)...110,000.00	(b)...110,000.00

Cost of Goods Sold

(a)... 15,000.00	(c)... 20,000.00
(b)...110,000.00	

decrease and proprietorship increase contained in the Sales account not being capable of separation until the taking of the physical inventory. However desirable this information may be, the great difficulty of securing it accurately from the accounts by the "current record of cost price" method explained above has caused most merchants to adopt the physical inventory method and resort to statistical methods for estimating the amount of goods on hand whenever such information is needed at other times than when it is available through the physical inventory.

The Record of Merchandise Purchases.—To record purchases of stock in trade, an account is kept with Merchandise Purchases. This account is, of course, an asset account and is debited with the invoice cost of all merchandise bought, the offsetting credit being usually to Cash or Accounts Payable. The real cost of the goods bought, however, is not its invoice or billed cost but the laid down cost at place of sale. This includes, in addition to invoice cost, all inward carrying charges such as freights, cartage, and insurance. These costs, instead of being recorded in Merchandise Purchases account, are best set up in a

separate account under some such title as Inward Freight and Drayage. Such costs, though recorded separately, are, however, asset items comprising a part of the value of the asset, merchandise. Information as to these costs, when set up separately, is thus immediately available. The information in the two accounts must be combined to show the full cost of merchandise bought. As the merchandise asset is decreased through sales, under the "current record of cost price" method explained above, Merchandise Purchases account is credited with the cost price and Cost of Goods Sold account is debited. Thus the balance of Merchandise Purchases account plus the Merchandise Inventory account will show at any time the amount of the merchandise asset on hand.

Under the method of the physical inventory, when a sale takes place, the only record made of it is in the Merchandise Sales account, no entry of the amount of the asset decrease being made in Merchandise Purchases account. The account thus is no longer a record of the asset, merchandise on hand, but only of the merchandise bought. Only when the physical inventory is taken is the information available as to the present amount of the asset, merchandise on hand. How this is reflected on the books has already been explained.

Because of the necessity of returning to the vendor goods which upon examination appear unsatisfactory, the record of merchandise purchases must be adjusted so that it will show the amount of *net* purchases. This can be accomplished by a credit in the Merchandise Purchases account, the offsetting debit being to the accounts payable or individual vendor's account. The better method, however, because it separates the two kinds of information, is to credit a separate account called Returned Purchases. Purchases account, then, shows gross purchases; Returned Purchases account, the amount of such purchases returned to the vendor; and the two accounts by their *net* difference show the net purchases. Information relative to these several items is thus immediately available from the accounts. Similarly, when the vendor, to prevent the return of goods sold, gives rebates and price allowances to the customer for goods which prove unsatisfactory, this information is best recorded in a separate account

Under this method, the Cost of Goods Sold account is not an account of current day-to-day entry, it being used only at the close of the fiscal period when the physical inventory is taken. Also, throughout the period there is no record on the books of the amount of merchandise on hand, the mixture of merchandise

MERCHANDISE INVENTORY

(1)... 15,000.00	(a)... 15,000.00
(c)... 20,000.00	

MERCHANDISE SALES

	(3)...145,000.00

MERCHANDISE PURCHASES

(2)...110,000.00	(b)...110,000.00

COST OF GOODS SOLD

(a)... 15,000.00	(c)... 20,000.00
(b)...110,000.00	

decrease and proprietorship increase contained in the Sales account not being capable of separation until the taking of the physical inventory. However desirable this information may be, the great difficulty of securing it accurately from the accounts by the "current record of cost price" method explained above has caused most merchants to adopt the physical inventory method and resort to statistical methods for estimating the amount of goods on hand whenever such information is needed at other times than when it is available through the physical inventory.

The Record of Merchandise Purchases.—To record purchases of stock in trade, an account is kept with Merchandise Purchases. This account is, of course, an asset account and is debited with the invoice cost of all merchandise bought, the offsetting credit being usually to Cash or Accounts Payable. The real cost of the goods bought, however, is not its invoice or billed cost but the laid down cost at place of sale. This includes, in addition to invoice cost, all inward carrying charges such as freights, cartage, and insurance. These costs, instead of being recorded in Merchandise Purchases account, are best set up in a

separate account under some such title as Inward Freight and Drayage. Such costs, though recorded separately, are, however, asset items comprising a part of the value of the asset, merchandise. Information as to these costs, when set up separately, is thus immediately available. The information in the two accounts must be combined to show the full cost of merchandise bought. As the merchandise asset is decreased through sales, under the "current record of cost price" method explained above, Merchandise Purchases account is credited with the cost price and Cost of Goods Sold account is debited. Thus the balance of Merchandise Purchases account plus the Merchandise Inventory account will show at any time the amount of the merchandise asset on hand.

Under the method of the physical inventory, when a sale takes place, the only record made of it is in the Merchandise Sales account, no entry of the amount of the asset decrease being made in Merchandise Purchases account. The account thus is no longer a record of the asset, merchandise on hand, but only of the merchandise bought. Only when the physical inventory is taken is the information available as to the present amount of the asset, merchandise on hand. How this is reflected on the books has already been explained.

Because of the necessity of returning to the vendor goods which upon examination appear unsatisfactory, the record of merchandise purchases must be adjusted so that it will show the amount of *net* purchases. This can be accomplished by a credit in the Merchandise Purchases account, the offsetting debit being to the accounts payable or individual vendor's account. The better method, however, because it separates the two kinds of information, is to credit a separate account called Returned Purchases. Purchases account, then, shows gross purchases; Returned Purchases account, the amount of such purchases returned to the vendor; and the two accounts by their *net* difference show the net purchases. Information relative to these several items is thus immediately available from the accounts. Similarly, when the vendor, to prevent the return of goods sold, gives rebates and price allowances to the customer for goods which prove unsatisfactory, this information is best recorded in a separate account

called Purchase Rebates and Allowances, which is also a credit offset to Merchandise Purchases account on the customer's books.

The Record of Merchandise Sales.—When goods are sold, a record of the sale is made to the credit of Merchandise Sales account, the offsetting debit being made to Cash or customer's account. As already explained, Merchandise Sales account is a mixed account. Also an explanation has been given of the way in which this mixture is separated under the two methods of recording merchandise transactions, viz., the "current record of cost price" and the physical inventory methods. This is accomplished by the use of the Cost of Goods Sold account as an offset to the Sales account.

As in the case of purchases, so also returned sales and rebates and allowances made on sales are best recorded in separate accounts so that this information will be always immediately available, although these accounts are an integral part of the sales record and the information in them must be combined with that in Merchandise Sales account to show the *net* amount of sales made.

Modern Practice in Showing Merchandise Transactions.—In order to give a fairly complete picture of the various activities directly connected with buying and selling merchandise, modern practice sets up the following accounts, illustrative entries in which are shown:

(1) MERCHANDISE INVENTORY

25,000.00	

(2) MERCHANDISE PURCHASES

300,000.00	

(3) INWARD FREIGHT AND DRAYAGE

15,000.00	

(4) RETURNED PURCHASES

	12,000.00

(5) PURCHASE REBATES AND ALLOWANCES

	4,000.00

(6) MERCHANDISE SALES

	450,000.00

(7) RETURNED SALES

14,000.00	

(8) SALES REBATES AND ALLOWANCES

3,000.00	

(9) COST OF GOODS SOLD

Accounts (1), (2), and (3) combined show the gross cost of goods available for sale. Accounts (4) and (5) show the reductions of this gross cost because of returns and allowances, the combined net balances of the five accounts showing the net cost of goods available for sale. Similarly, the combined balance of accounts (6), (7), and (8) will show the amount of net sales. Account (9) is used as explained on page 97, under the physical inventory method, to compute the cost of goods sold which serves as an offset to the net sales, whereby the gross profit or proprietorship increase element is separated from the merchandise asset

decrease, both of these elements being mixed together in the Merchandise Sales account. In computing the cost of goods sold, it becomes necessary to set up on the books in the Merchandise Inventory account the value or amount of the present or final inventory of goods on hand, the amount currently carried in Merchandise Inventory account being the initial inventory or inventory at the beginning of the fiscal period. The method of setting up the final inventory was explained on page 97.

Classification of Merchandise Accounts in the Ledger.—The nature of the several merchandise accounts has been sufficiently indicated above to give a basis for their classification and set-up in the ledger. One section of the ledger is devoted to a set-up of asset accounts, a second to liability accounts, and a final section to proprietorship accounts. Due to the mixed nature of merchandise accounts as they are kept throughout the period, it is difficult to allocate or classify them in the ledger. Under the physical inventory plan, the only account showing the amount of the asset merchandise is the Merchandise Inventory account and that does so only at the instant of the inventory taking. At all other times the merchandise asset is recorded partly in the Inventory account until that merchandise is all sold and partly in the Purchases account, which does not, however, record the merchandise decreases through sale. Hence, since it is not possible to place the accounts with consistent accuracy in the proper section of the ledger, only the Merchandise Inventory account is placed among the assets, all the others being grouped conveniently together in the proprietorship section where, by a suitable combination of them for the purpose of computing the cost of goods sold, the amount of the proprietorship increase—i.e., the gross profit—through sales is determined. Hence, their placing in the proprietorship section is largely a matter of convenience in use, justified by their use in the ultimate determination of the proprietorship increase by means of the device of the physical inventory.

The Old Merchandise Account.—Originally, the record of all merchandise transactions was kept in one account, Merchan-

dise, and even today, particularly in small businesses, this single merchandise account is used. When so used the account is merely a combination of the separate accounts (1) to (8) inclusive, shown on page 100. The account is, of course, a mixed account which at the close of the fiscal period must be separated into its basic elements. How this is done is explained and illustrated in Chapter 11. The chief objection to the use of this single merchandise account is the difficulty of securing from it easily and quickly the different kinds of information needed in the management of the merchandising activities. Under the modern practice of accounting for merchandise, this information becomes immediately available, having been sorted out and collected under the desired separate titles at the time the record was made. This is a decided advantage in a large business where many different executives are concerned in handling this group of activities.

Mixed Accounts Defined.—In the course of business operations, certain accounts which at the beginning of the period belong definitely to some one of the three groups, asset, liability, and proprietorship, with the progress of the period take on a mixed character. That is, included under one account title there is a mixed record of asset and expense, or other combination of two or more groups. For example, the machinery which belongs to the asset group at the beginning of the period depreciates in value day by day, both through use and the lapse of time. This daily decrease in value is of slight amount and in the management of the business it is not necessary that it be shown daily on the books. While it is theoretically possible to record this daily loss, practically nothing would be gained by so doing. Hence, the machinery account is allowed to carry both the asset value of the machinery at a given time and the amount of its depreciation. Only periodically, usually at the close of each fiscal period, is the account separated into its two parts, the one which shows the true asset value and the other which indicates the amount of depreciation and which is therefore the expense or proprietorship-decrease portion of the account.

The way in which the Merchandise account takes on a mixed character has been explained above. Thus, because of the way

in which accounts are kept practically, as distinguished from a theoretically correct method, which would maintain at all times a sharp line of division between assets, liabilities, and proprietorship, certain accounts are allowed to become mixed. Another type of mixed account will now be explained.

Accounts with Assets Subject to Depreciation.—Another kind of mixed account is that of the fixed asset subject to depreciation. Due to ordinary wear and tear, and some other causes, most fixed assets lose part of their value as time goes by. At the end of each fiscal period, the amount of this loss and the remaining value of the asset must be estimated. Such an estimate is called an appraisal. The difference between the present appraised value of the asset and its former cost or appraised value constitutes the loss from wear or other causes, and is termed depreciation.

Since depreciation takes place day by day, but for practical reasons cannot be recorded daily, fixed asset accounts, as they stand valued in the ledger, represent true asset values only for the date of their entry. Except on that date, these accounts, then, include depreciation and hence are mixed accounts including both asset and proprietorship elements. As with the Merchandise account, an adjustment is made periodically to separate the two elements. Since the asset account is a debit account, entry of the amount of the depreciation to the credit side would result in the account showing, by its balance, the appraised value of the asset at any given time. It is, however, desirable to leave the account in its original condition, in order not to lose sight of the cost of the asset. Therefore, the usual practice is to enter this figure of depreciation to the credit side of a separate account called Depreciation Reserve for the particular asset, using the word "reserve" in the sense of "estimate."

If the latter method is followed, each such asset has two accounts, one showing original cost and the other estimated depreciation, and it is necessary for a true valuation of the asset to read the two accounts together; that is, from the asset account showing original cost, the amount credited to the reserve account must be deducted to show the true value of the asset. Because of this,

the reserve account is often called a valuation account or an offset account, as it gives the amount of the offset to the original asset account necessary to show its correct value. Similarly, when an increment in the value of an asset is kept separate from its face or par value—as when the premium paid for stock or bonds is shown separately from the par value of the stock or bonds—the account showing the increment is called an adjunct account and must be read with the asset account to secure true valuation. The offset account, then, is a subtraction item and the adjunct an addition item to the corresponding asset account. The showing of the asset and its periodic valuation is made as follows:

MACHINERY

1928			
Jan. 1	5,000.00		

DEPRECIATION RESERVE MACHINERY

		1928	
		Dec. 31	500.00
		1929	
		Dec. 31	500.00

A reading of the two accounts taken together shows the original value of machinery as $5,000, the value after one year's use $4,500 and after two years' use $4,000. The contra debit for the credit in the reserve account is made to an account called Depreciation, which represents the expense of the depreciation for the period, that is, the deduction from profit or proprietorship.

Capital and Revenue Expenditures.—The fixed asset accounts usually show the investment of some of the original capital and therefore are sometimes called capital asset accounts. A fundamental distinction must be made between expenditures for the purchase and installation of the asset itself and expenditures for expenses in connection with its repairs, maintenance, and upkeep. These two classes of expenditures are usually called "capital expenditures" and "revenue expenditures" respectively.

The asset account itself is chargeable with all costs incurred up to the point of putting the asset in shape for use in the business. It may be charged also with subsequent expenditures resulting in an increase in its value. Expenditures, however, which are for the purpose of repairs or of keeping the property from too rapid depreciation without adding anything to its original value, must be charged to a properly labeled *expense* account. These revenue expenditures for expenses, such as repairs, maintenance, upkeep, together with depreciation, are subtractions from profit and proprietorship, while asset expenditures usually constitute an exchange of the asset cash for some other asset, which exchange has no effect on proprietorship.

Sometimes two items of expenditure are seemingly of the same nature, while in fact they belong to separate groups, as the original painting cost of a building and the cost incurred later for repainting. In the first instance, the expenditure is an asset, a part of the original cost necessary to put the building in a finished condition; in the other instance, it is an expense necessary to maintain the asset in something near its original condition. In order to secure accuracy in the records, careful discrimination between capital and revenue expenditures is a matter of great importance.

CHAPTER 10

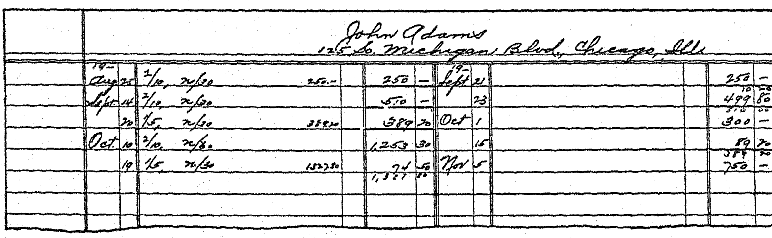
ACCOUNT TECHNIQUE AND LEDGER PROOF

The Ledger Record.—All business transactions requiring record in the accounts are analyzed in accordance with the principles laid down in the preceding chapters and record of them is finally made in the ledger. As previously explained, the ledger is the proprietorship equation in a special form designed for the convenient and easy record of the numerous individual transactions as they take place. It is the purpose of this chapter to explain some of the methods used in handling accounts and also in proving the mathematical correctness of the ledger record or equation.

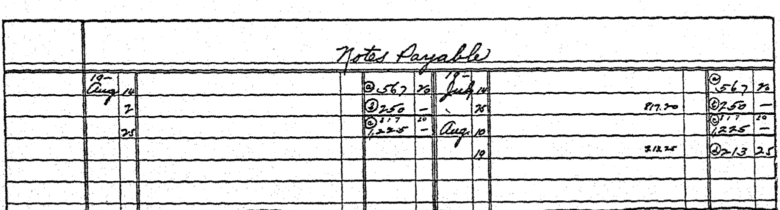
Entries and Rulings in Personal and Note Accounts.—Entries are usually made in accounts, on either side, i.e., debit and credit, in the order of their occurrence in point of time. Some peculiarities met with in the entries and rulings of personal and note accounts, both receivable and payable, will be discussed here.

By way of illustration, take the account receivable with John Adams, a customer. (See Form 3, page 108.) Notice that his address is included in the heading, that the terms of credit extended to him on each sale are shown in the explanation space on the debit side, and that his payments are entered on the credit side according to the date on which they are received. If a payment appears directly opposite the corresponding charge, with no other credits intervening, lines are ruled underneath both the debit and the credit items to show that down to that point the account balances. The record of dealings with each customer should be as full as possible in order to furnish an accurate basis for credit rating. If he is prompt in his payments, taking advantage of the discounts offered him, the account should show this.

Several methods of showing discounts are used. Under one method, the amount of the discount is entered in small ink figures above the net amount received. By another method, the credit amount is entered in one item, canceling the corresponding debit, and the abbreviation "Dis." is entered to the left of the money column in the wide explanation space or column. Where this method is used, it is well to include also the amount of the discount, thus: ("Dis. $10.00)," as otherwise in the event of a two discount option—e.g., 2/5, 1/10, n/30—it is not discernible which option was taken.



Form 3. Accounts Receivable Account



Form 4. Notes Payable Account

When two partial payments are made, as on October 1 and 15, to settle the charge of September 20, and there are no other credits intervening, the two credits, with the total in small figures, may be ruled off against the single charge. At the time the trial balance is taken—in the illustration on August 31, September 30, and October 31—the balance of the account is calculated and shown in pencil on its proper side, debit or credit, just to the left of the reference column on the line of the last entry on that side. The taking of a trial balance is explained on page 114.

Sometimes, when payments are made out of order or on account and it is desired to show to what particular charges they apply, an index letter or number showing the cross-reference is used. For illustration see the Notes Payable account. As notes are issued by the business, they may be numbered serially and when a particular note is paid the entry should show the number of that note.

These remarks apply also to notes receivable. If full payment is received on each note as it comes due, the entry may be made on the same line on which the note was first recorded. This may result in the entries to the account appearing out of chronological order—see the debit side of Notes Payable account—but it assists in an easy determination of the outstanding notes. Numbering, or preferably lettering, the entries in an account may be applied with advantage also to the entries in personal accounts, as it aids in locating unpaid items, especially where payments cannot be recorded in the order in which the items to be settled have been entered.

The method of ruling and thus canceling items as explained above, is usually limited to notes and accounts receivable and payable, that is, to the accounts on which particular payments are received or made and the balance of which must usually be ascertained at frequent intervals. On the other hand, it is desirable that the method of showing periodic balances, by means of small pencil figures for use in the trial balance be applied to all accounts.

Balancing an Account.—Sometimes it is desirable to show on the face of the account the difference between the total debits and credits, i.e., the balance of the account. Many bookkeepers balance their Cash account periodically. This may be accomplished by writing the balance on the side with the smaller total, and by formally ruling up the account and entering in ink the totals on both sides, which totals, of course, are equal. (See Form 5, page 110.) It should be noted that the total rulings in the money columns are drawn on the same line or level on both sides of the account, even though this does, as in the illustration, leave several blank lines on the debit side. This is done so that

the entries in the new section of the account will start on the same line for both debits and credits. On the next line below the double ruling, the balance item is brought down to its proper side. The account is now said to have been closed as to all items above the rulings and shows its open balance in the one item beneath the rulings.

It is important to bear in mind that the closing balance of the account is on the side showing the smaller *pencil* total, whereas

Cash

19— July	1	A Rowe, Investment	5000	—	19— July	1	Rent		50	—
	2	Sales for Cash	595	75		2	Office Expenses		72	75
	3	Notes Receivable	250	—		3	Purchases		3127	50
		Interest on Note	2	50			Freight		25	75
	6	A B Snyder	36	75		5	Horse		150	—
		2,352—	5,884	50		6	Wagon		75	—
							A Rowe, Personal		15	—
							Clerk Hire		17	—
									3,532	50
							Balance		2352	—
			5884	50					5884	50
July	8	Balance	2352	—						

Form 5. Account Balanced and Ruled

the opening balance which appears beneath the ruling is on the opposite side. The only purpose of the entry on the smaller side is to force an equality of the two sides, thus formally closing all entries to that point and showing the "balance" as a single item in the new portion of the account.

It should be noticed that this "balance" entry does not disturb the equilibrium of the books, because it is entered on both the debit and credit sides of the same account.

Use of Red Ink.—The total and closing rulings and the balancing entry are sometimes made in red ink, but black ink is preferable. The use of red ink is usually reserved for recording subtraction items in the same column with those from which the subtraction is to be made. Where red ink is so used, the total

of the "red" is subtracted from the total of the "black" amounts and the net result is shown in the total of the column. When there are only a few "red" items, this method of recording obviates the use of a separate column for them. Such red ink entries are not found in the standard ledger, being confined to special ledgers and columnar statements of various kinds.

Rulings.—The single lines above the totals, indicating the addition, extend only through the money columns and are on the same line on both debit and credit sides. The closing rulings beneath the footings are double and extend through the date columns, the money columns, and the posting reference columns. The diagonal line on the debit side from the total line to the date column for the last entry is for the purpose of *filling* all blank lines, and preventing any further entries on them after the account is formally closed, as such entries would have the effect of falsifying the totals shown. Thus the diagonal line which may be on either debit or credit side serves as a safeguard against fraud. Diagonal rulings, however, are not used so extensively as formerly.

Transferring.—When for any reason it is desirable to transfer an account from one page to another, the transfer is made by means of an entry similar to the "balance" entry shown in the Cash account above. Instead of the word "Balance," the word "Transfer" or "Forward" is used, and in the column between the explanation and money columns is entered the number of the page to which the transfer is made. On that page the account name appears, and the first entry is the amount transferred from the old account, with a page reference to the old account in the reference column. In making the transfer it is customary to close the portion of the account on the old page in the manner explained above, and to transfer only the balance.

Sometimes an entry may be made in an account in error and for this or some other reason may need to be transferred. Assuming, for the purpose of illustration, that such an entry is a credit, its amount is first written as a subtraction item on the debit side in the old account, with proper reference to the page

125

Cash

Date		Item	Folio	Amount		Date		Item	Folio	Amount	
19— Jan.	10	Forward from page	8	4,732	55	19— Jan.	10	Forward from page	8	2,890	88

8

Cash

Date		Item	Folio	Amount		Date		Item	Folio	Amount	
19— Jan.	6	Balance		3,216	30	19— Jan.	6	Salaries		125	—
	7	R. C. Hill		72	50		7	Stamps		5	—
	8	Notes Receivable		375	—		8	Telephone		6	25
	9	Interest		3	75		9	A. B. Smith		2,162	40
	10	School Bonds		1,066	—		10	Charity		10	—
				4,732	55			Scott Dry Goods Co.		569	50
								Freight In		12	73
										2,890	88
		Forward to page	125	4,732	55			Forward to page	125	2,890	88

Form 6. Transfer of Account to New Page

Number at upper right-hand corner indicates page number.

to which it goes. On the new page it appears on the credit side, like the original item, and may be considered as the contra to its transfer record in the old account. In the new account the old page number must be entered. Great care should be exercised in all transfer entries to show correct cross-indexing.

Sometimes it is desired to transfer not the balance but the total debits and credits of an account. In this case the total debit amount may be entered on the credit side of the old account and the total credit amount on the debit side, with proper page and explanatory references. This forces the equality of the two

Index			
A		D	
Advertising	325, 419	Delivery Expense	351
		Depreciation	364
B		E	
Bad Debts	378		
C		F	
Cash	1, 2, 110	Freight & Cartage Inward	299
Cost of Goods Sold	296	Furniture & Fixtures	33
		G	

Form 7. Ledger Index

sides and the account may now be totaled and ruled off. The total debit amount of the old account is then entered on the debit side and the total credit amount on the credit side of the new account.

A much simpler and more workable method, however, is to treat the new account as a continuation of the old. There is then no necessity of formally balancing the old account. The transfer is effected by totaling both sides of the old account and indicating the new page to which these totals are transferred, taking care to enter the totals on the proper side of the new account, with proper references to the old account page. This procedure is illustrated in Form 6, page 112.

The Ledger Index.—In a large business in which the executives need greatly detailed accounting information, a very large number of accounts must be carried in the ledger. To provide easy access to these accounts, it is customary to provide the ledger with an index. This is arranged alphabetically in the front of the book on specially ruled pages and may appear somewhat as shown in Form 7, page 113.

The Trial Balance.—When all transactions for the fiscal period have been entered on the ledger, it is desirable to make sure that the ledger is in equilibrium, i.e., to make sure that for every entry on the debit side there is an equal credit entry, and that for every credit entry there is an equal debit entry; in other words, that the ledger equation explained in Chapters 6 and 7

TRIAL BALANCE, June 30, 19—

		Dr.	Cr.
1	Cash	$ 1,000.00	
3	Notes Receivable	1,500.00	
4	A. B. Casey	500.00	
4	B. C. Darby	450.00	
5	C. D. Ebbets	200.00	
5	D. E. Field	300.00	
6	E. F. Gall	150.00	
6	F. G. Hiller	350.00	
10	Merchandise Inventory	4,000.00	
11	Store Equipment	500.00	
11	Depreciation Reserve Store Equipment		$ 75.00
15	Notes Payable		1,000.00
16	Hill & Innes		350.00
16	Jones & Kanter		175.00
17	Lunt & Mason		200.00
17	Noble & Oberly		150.00
20	P. I. Richards, Capital		5,000.00
21	P. I. Richards, Personal	1,000.00	
27	Sales		20,000.00
28	Purchases	12,000.00	
30	Salaries	2,500.00	
32	Insurance	500.00	
37	General Expenses	2,000.00	
		$26,950.00	$26,950.00

is maintained. This proof of the mathematical correctness of the ledger is accomplished by means of a device called the "Trial Balance," which consists of a debit and credit list of either all account totals or of all account balances. If the total debits equal the total credits, the mathematical equilibrium is demonstrated. A trial balance is usually set up somewhat as shown opposite.

The left-hand column shows the page where the corresponding account is located in the ledger. The debit money column contains debit account "balances" and the credit money column credit account balances.

The same trial balance, showing debit and credit totals for each account instead of balances, will appear somewhat as follows:

Trial Balance, June 30, 19—

		Dr.	Cr.
1	Cash	$12,500.00	$11,500.00
3	Notes Receivable	5,000.00	3,500.00
4	A. B. Casey	1,500.00	1,000.00
4	B. C. Darby	1,800.00	1,350.00
5	C. D. Ebbets	3,200.00	3,000.00
5	D. E. Field	1,700.00	1,400.00
6	E. F. Gall	500.00	350.00
6	F. G. Hiller	710.00	360.00
10	Merchandise Inventory	4,000.00	
11	Store Equipment	750.00	250.00
11	Depreciation Reserve Store Equipment		75.00
15	Notes Payable	16,000.00	17,000.00
16	Hill & Innes	5,000.00	5,350.00
16	Jones & Kanter	775.00	950.00
17	Lunt & Mason	3,000.00	3,200.00
17	Noble & Oberly	750.00	900.00
20	P. I. Richards, Capital		5,000.00
21	P. I. Richards, Personal	1,000.00	
27	Sales		20,000.00
28	Purchases	12,000.00	
30	Salaries	2,500.00	
32	Insurance	500.00	
37	General Expenses	2,075.00	75.00
		$75,260.00	$75,260.00

Neither method of showing the trial balance has any inherent advantage over the other. Some concerns desire the account totals to be shown in the trial balance, as that indicates to some extent the volume of business. This would be true of all accounts which had been opened during the current period. As to those carried over from a previous period, little current information would be given. As a general thing, however, the status of *customers'* accounts is better indicated when both total charges and total credits are shown. Where only the balance is shown, it does not provide any basis for determining whether that balance is normal for that particular account. In judging a request for a further extension of credit, there is a rather close relationship between the volume of trade with a customer and the amount of his unsettled balance.

Sometimes, even the totals of accounts that *balance* are shown in the trial balance, thus giving the status of *all* accounts appearing in the ledger. Again, concerns desirous of knowing the net amount owing on customers' accounts and the net amount owed on creditors' claims, require *balances* of all personal accounts and of cash, but debit and credit *totals* of all other accounts. No unalterable rule can be given. The manner of showing the accounts in the trial balance is governed by the way in which the trial balance is to be used and the purpose it is to serve. Manifestly, however, the trial balance cannot give information of every kind desired by a manager. As personal accounts are usually handled by canceling offsetting credits against corresponding debits and carrying only balances forward, the trial balance cannot well show at the same time both total transactions and outstanding balances. Only in small concerns could the trial balance give the information which in larger concerns would be gathered statistically and furnished in addition to the trial balance.

The tendency in modern accounting is to make the ledger record so detailed that most accounts are *currently* "uniphase," i.e., have entries on but one side, and in connection with such accounts the two methods of entering them in the trial balance are identical, because the total of the one side of the account is at the same time the balance of the account. It must be observed that as a matter of course this modern tendency does

not apply to personal accounts nor to adjustment and closing accounts.

Work Preliminary to the Trial Balance.—Before taking a trial balance, the accounts should be totaled on each side. These totals are shown in small but legible pencil figures immediately beneath the last entry, sufficient space being left for a regular entry on the line immediately below the pencil footing. Reference to the illustration in Form 5 (page 110) makes this bookkeeping detail clear. The difference between the totals of the account should now be shown in pencil in the explanation column on the side of the larger amount. Taking the trial balance thus becomes merely a transcription of pencil balances, debit or credit as the case may be, from the accounts in the ledger.

Frequency of Trial Balance.—In most businesses, it is customary to take a trial balance monthly. This serves three purposes: (1) It provides the bookkeeper a proof of accuracy. (2) It gives summaries of each account and so furnishes a bird's-eye view of the status and operation of the business. (3) If the ledger is not in balance, it allocates the error to a particular month and so makes unnecessary a search of the record of any other month. All trial balances other than the first are cumulative. The trial balance at the end of February, for example, contains the cumulative totals for both January and February.

As a convenient means of making a permanent record of monthly trial balances, a special trial balance book with twenty-four columns across two facing pages is used, two columns providing a record for the trial balances of each month. This obviates the necessity of rewriting the account titles for each trial balance, as the titles written once at the left margin carry over for each of the trial balances. Each set of two columns is headed with the date of the trial balance figures recorded therein.

Errors in the Trial Balance.—Errors in trial balance come to attention when the debit and credit totals do not agree. Most errors result from careless work in making the entries in the accounts or in abstracting account balances. The preliminary

work of entering the small pencil footings of both sides of each account and also the account balances previous to taking the trial balance should be done carefully so as to reduce errors to a minimum.

It is not purposed here to discuss all the kinds of errors that find their way into the accounting records. Errors are frequently made in the original analysis and classification of the transaction, which, as previously stated, result in an entirely incorrect showing of financial condition. A careful distinction between capital and revenue charges must always be made. Such errors do not affect the balance of the books and are not detected by the trial balance. Their detection is one phase of the professional auditor's work. If the work of analysis, classification, and entry has been done correctly, then the ledger should prove. Some points in connection with errors which often occur in posting will be treated here.

The equality of the two totals of the trial balance proves that for every debit entry on the books there has been made an equal credit, or at any rate that the sum of all debit entries equals the sum of all credit entries; i.e., it proves only the *mathematical* correctness of the work.

It might happen that an item, though posted to the *correct side* of the ledger, has been entered in the *wrong account.* The trial balance would not detect an error of this kind. For example, John Doe's account might be debited with a charge belonging to Richard Roe, both being customers. This, of course, would make the books show wrong balances in those particular accounts, but would not cause an incorrect showing in the *total* assets. However, more serious results may come from an error caused by entry to the wrong account.

According to the schedules shown earlier, all transactions bring about increases and decreases in the three main groups of accounts, viz., assets, liabilities, and proprietorship. A transaction resulting in an increase of assets may have its credit in any of the three classes—decrease of assets, increase of liabilities, or increase of proprietorship. A credit entry in any one of these would result in an exact offset to the debit and would therefore, so far as that transaction was concerned, result in equal debits

and credits in the trial balance; but in spite of such equality, were entry made to the wrong group of accounts, it would bring about absolutely false results. This would be the case if a proprietorship account were credited, resulting in an increased profit, when the credit should have been to the liability group with a resulting increase of the liabilities—two divergent results.

Although the trial balance does not detect errors in posting to the wrong account, it has great value in that its equality is considered good evidence of the correctness of the books. This is so because errors of the kind just referred to are not of so frequent occurrence as those involving only the mathematics of the work.

Suggestions for Locating Errors.—Where trial balance totals do not agree, it is certain that one or more errors have been made somewhere. The following suggestions may be useful in locating them:

1. If there is a difference of 1 in any column, i.e., .01, .10, 1.00, 10.00, etc., the error very likely results from wrong addition. Check additions of the trial balance and if the error is not located there, those of the ledger accounts must be checked as well.

2. If the difference between the two trial balance totals is an even number, divide this difference by 2 and look through the trial balance for an item of that amount but entered as a debit instead of a credit or vice versa. The amount of the error must be divided by 2 because the placing of a given item in the wrong column would result in a difference of *twice* this amount in the totals of the trial balance. If the error is not located in the trial balance, it may be necessary to look through the ledger accounts because the wrong placing may have occurred there.

3. If the mistake has not been found by either of these methods, the trial balance should be checked against the ledger to be sure that no open accounts have been omitted. Examine all closed accounts to see that they balance.

4. If the difference between trial balance totals is divisible by 9, the error may be due to a *transposition* of figures or to a *transplacement*, sometimes called a *slide*. A transposition is an interchange of figures, as 96 for 69, 215 for 512, 6,274 for 4,276,

etc. The first is called a simple or one-column transposition, the second a two-column, and the last a three-column transposition. One-column transpositions may also occur in numbers of three or more figures, as 172 for 712, or 3,129 for 1,329.

Transpositions.—The following rules will be of help in locating errors of transposition. To determine divisibility by 9, the easiest way is to "cast out" the 9's.

If the difference between the trial balance totals is divisible by 9 and consists of less than three figures, i.e., 9, 18, 27, 36, a one-column transposition may be the cause of the error. Divide this difference by 9. The quotient will be the difference between the two transposed figures. Thus, 69 written as 96 causes an error of 27, which divided by 9 gives a quotient of 3, the difference between the transposed figures 6 and 9. Any other two figures such as 1 and 4, for example, differing by 3 will, of course, cause the same error of 27. However, in looking through the trial balance for the transposed figures, the search can be restricted to such of the digits as differ by 3 in the illustration just cited.

Transplacements.—A transplacement or slide occurs when some or all of the digits of a number are moved one or more places to the right or left without change in the order of the figures; for instance, 736 written as 73.60, as 7.36, or as 700.36. The first is called a one-column slide, the second and third two-column slides. The error caused by a one-column slide is always divisible by 9, a two-column by 99, a three-column by 999, etc. The division by 9, 99, 999, etc., disregarding decimals, always gives the figures whose transplacement has caused the error. Thus the error caused by writing 736 as 73.60 is 662.40, which divided by 9 is 736; or 736 written as 7.36 produces an error of 728.64, which divided by 99 gives 736; or 736 written as 700.36 causes an error of 35.64, which divided by 99 gives 36, the part transplaced.

When a whole number of dollars is written as cents, the resulting error is divisible by 9 and moreover the cents *added to* the dollars gives 99 in each case. For instance in writing:

.73	instead	of 73.00,	the	resulting	error	is	72.27
.58	"	" 58.00,	"	"	"	"	57.42
.16	"	" 16.00,	"	"	"	"	15.84

When the error in the trial balance is of this kind, the amount transplaced may be found by subtracting the cents of the error from 100. In the above examples this difference would be 100—27, 100—42, 100—84, or 73, 58, and 16 respectively, which are in each case the figures of the transplaced amount as seen in the example. Having determined this, the trial balance and ledger accounts should be gone over to look for a slide of the given number.

Checking the Postings.—From the above discussion, the impossibility of determining in all cases the nature of the error is quite evident—particularly as to whether it is one caused by a transposition or a slide. Unless the kind of error is readily discernible, it is usually advisable to employ the method of checking, i.e., going over all the work in the ledger to determine its correctness.

After all, careful work in making the record with legible figures and in proving additions and subtractions, wherever possible, more than pays for itself in the time saved hunting for errors caused by slovenly and inaccurate work.

CHAPTER 11

PERIODIC ADJUSTMENTS AND SUMMARIZATION

Why Current Records of the Ledger Need Adjustment.— At the end of the fiscal period, the ledger usually contains a mixed record and so does not present a true picture of financial condition. This is due to the practical difficulty of maintaining currently in the records a sharp line of division between the three basic classes of accounts, viz., assets, liabilities, and proprietorship. The fixed assets of the business are constantly depreciating in value; merchandise tends to become out of date, shopworn, stale, or soiled; some merchandise has been sold, while some is still on hand; some of the accounts receivable may prove uncollectible, and some of the notes receivable may be dishonored. Also, at the end of the period liabilities such as taxes, salaries, rent, and the like may have been incurred, but because there is no creditor's invoice or other business paper as evidence of such liability, they are not usually entered on the books until payment is made.

Again, it may be that the supplies and services paid for during this period, as shown by the various expense accounts, have not been entirely used. A supply of coal for heating purposes may be on hand. Insurance may have been bought for a fairly long period of time, a part of the protection period extending beyond the close of the current fiscal period. In these and similar cases, the items must be separated into their two component elements, one part belonging to the current period, and the other part to a later period. The part of the expense to be deferred and used up in a later period represents an asset at the close of the current period and must therefore appear on the balance sheet under the heading, "Prepaid Expenses."

Similarly, income is sometimes received in advance to cover services which have not yet been rendered, or rendered only in part, as when rent is received in advance to cover a given number of days or months, some of which belong to the next fiscal period.

Consequently, only a part of this income applies to the current period, the balance being deferred to later periods.

For these reasons, certain asset accounts need to be adjusted and certain liability accounts must be opened to bring the ledger into accord with the actual condition of things and show the true financial status of the business. The entries required for this purpose are called "adjusting entries" to distinguish them from the closing or summarizing entries to be described later in this chapter.

First in importance among the adjusting entries are those required to show the correct value of the stock-in-trade, the fixed assets, and the accounts receivable. Whether the merchandise items are kept in one or several accounts, as explained in Chapter 9, the value of the stock on hand is not usually shown currently on the books. Goods have been purchased at one price and sold at another, and no record of the value of the merchandise inventory on hand is available. Similarly, no current record has been made of the depreciation of buildings, furniture, fixtures, or other equipment, nor has any provision been made for the accounts receivable that may prove uncollectible.

Summarization or Closing Entries.—Periodically—at the close of the fiscal period—the owner desires to know the net result of his effort for the period. During the period, his books have carried a greatly detailed separation of income and expense items for the purpose of furnishing desired information relative to the various operating activities. At the close of the period, however, all these separate records of income and expense must be summarized so that the net result may be known. This is accomplished by means of a Profit and Loss *account* opened in the ledger for this purpose. To this account are transferred the balances or totals of all the separate income and expense accounts, the income items appearing on the credit side and the expense items on the debit side of the Profit and Loss account. The balance of this account then shows the net profit or loss for the period. The individual income and expense accounts are now in balance, their content having been transferred to Profit and Loss account. They

are, therefore, *closed* for the current period and ready to begin the record of the next period's activities.

An explanation will now be given of the various types of adjusting and closing entries.

Basis of Adjusting Entries.—These items, then—merchandise, asset depreciation, bad debts, prepaid and accrued expenses and income—are the occasion of the adjustment entries. An inventory is required to find the value of the stock-in-trade; an appraisal is made of the depreciating assets to determine the amount of depreciation for the current period; and proper consideration must be given to the prepaid and accrued income and expense items for the period under review. There are thus seen to be seven classes of adjusting entries, some or all of which must be made in order that the ledger may properly reflect assets, liabilities, and proprietorship at the close of the fiscal period. These seven classes are:

1. The Final Merchandise Inventory
2. The Estimate of Uncollectible Accounts
3. The Valuation of Fixed Assets Subject to Depreciation
4. Accrued Income
5. Prepaid or Deferred Expense
6. Accrued Expense
7. Deferred Income

The following illustrations are concerned with the several classes of adjusting entries. The detail of the account is not shown in each case, but only the balance.

Adjusting and Closing the Merchandise Records.—Modern practice in keeping the record of merchandise activities was explained and illustrated in Chapter 9, the separate accounts used being: Merchandise Inventory, Sales, Returned Sales, Sales Rebates and Allowances, Cost of Goods Sold, Purchases, Inward Freight and Cartage, Returned Purchases, and Purchases Rebates and Allowances. It should be understood that this detailed record of merchandise transactions is preferable to the single merchandise account only because it gives more information. The detailed

record does not in any way maintain a sharper separation of the asset and income elements of the merchandise transactions than does the single merchandise account. It does, however, make immediately available information as to volume of business, purchases, returns, and so forth—items which in any well-managed business are watched carefully. These detailed accounts taken together comprise the merchandise record and are equivalent to the single merchandise account.

It is apparent from a consideration of the *single* merchandise account that at any given time it includes these three items: (1) the net cost of the total goods to be accounted for; (2) the decrease in the asset merchandise brought about by sale; and (3) the profit on the goods sold. In order to bring about the separation of the *detailed* merchandise records into the two elements—(a) goods still on hand, that is, the asset element, and (b) the profit on goods sold, that is, the income element—it is necessary to bring all of these accounts together for the purpose of summarization. This summarization is accomplished in much the same way as in the profit and loss statement. The net amount of sales and the net cost of goods sold are determined and set up against each other in order to indicate the gross profit. In arriving at the cost of goods sold, it is necessary to bring together the opening inventory, the purchases, the inward freight and cartage, and from their sum to subtract the purchase returns, the purchase rebates and allowances, and the final inventory. How this is accomplished in the ledger is explained by an illustration, in which the adjustments or transfers between accounts are traced by means of cross-index letters.

Assume the following facts: Goods on hand January 1, 19—, $10,125.67; purchases for six months $47,897.42; inward freight and cartage $560.25; returned purchases $2,125.40; purchase rebates and allowances $267.92; sales $65,283.21; returned sales $3,924.83; sales rebates and allowances $392.48; and goods on hand June 30, 19—, $11,267.40. Each of these items appears as the first entry on the proper side of its account, and is distinguished by not being marked with a bracketed letter. The items comprise the ledger record previous to summarization at the close of the fiscal period.

Merchandise Inventory

19—		19—	
Jan. 1	10,125.67	June 30 Cost of Goods Sold ....(A)	10,125.67
June 30............(B)	11,267.40		

Sales

19—		19—	
June 30 Ret'd Sales.(C)	3,924.83	June 30 (Total).........	65,283.21
Sales Rebates & Allow. ....(D)	392.48		
Profit & Loss (E)	60,965.90		
	65,283.21		65,283.21

Returned Sales

19—		19—	
June 30 (Total).........	3,924.83	June 30 Sales........(C)	3,924.83

Sales Rebates and Allowances

19—		19—	
June 30 (Total)........	392.48	June 30 Sales.......(D)	392.48

Cost of Goods Sold

19—		19—	
June 30 Mdse. Inv...(A)	10,125.67	June 30 Mdse. Inv...(B)	11,267.40
Purchases ..(F)	47,897.42	Ret'd Pur...(H)	2,125.40
In-Frt.&Cart.(G)	560.25	Pur. Reb. & Allow. ......(I)	267.92
		Profit & Loss (J)	44,922.62
	58,583.34		58,583.34

Purchases

19—		19—	
June 30 (Total purchases)	47,897.42	June 30 Cost of Goods Sold .....(F)	47,897.42

In-Freight and Cartage

19—		19—	
June 30 (Total).........	560.25	June 30 Cost of Goods Sold .....(G)	560.25

Returned Purchases

19—		19—	
June 30 Cost of Goods Sold .....(H)	2,125.40	June 30 (Total)	2,125.40

Purchase Rebates and Allowances

19—		19—	
June 30 Cost of Goods Sold .....(I)	267.92	June 30 (Total)	267.92

Profit and Loss

19—		19—	
June 30 Cost of Goods Sold .....(J)	44,922.62	June 30 Sales.......(E)	60,965.90

To determine the cost of goods sold, there are transferred to the Cost of Goods Sold account the January Merchandise Inventory $10,125.67, the purchases $47,897.42, and the In-Freight and Cartage $560.25. The sum of these three items on the debit side, $58,583.34, constitutes the gross amount of merchandise available for sale. These transfer entries *close* their respective accounts. Of the $58,583.34 there remains on hand—according to the physical inventory taken June 30—$11,267.40 of merchandise. This is transferred from Cost of Goods Sold account to Merchandise Inventory where now on June 30 it stands labeled as the asset, merchandise. The balances of the two accounts, Returned Purchases and Purchase Rebates and Allowances, are next transferred to Cost of Goods Sold account where along with the June 30 inventory on the credit side they serve as subtraction items from the gross amount of merchandise available for sale, $58,583.34, thus determining the cost of goods sold, viz., $44,922.62.

To determine the amount of the net sales made, the Sales account is debited with the balances of the Returned Sales and Sales Rebates and Allowances, thus showing a balance of net receipts from sales amounting to $60,965.90.

The debit balance of Cost of Goods Sold account, $44,922.62, serves as an offset to the net credit balance of Sales account, $60,965.90; the difference, $16,043.28, being the gross profit on sales or the true income portion of the sales price of net goods sold

during the period. To bring these two items together, each is transferred from its particular account to the main summary account, Profit and Loss. These transfers *close* the Cost of Goods Sold and Sales accounts and set up in the Profit and Loss account, on the credit, the net volume of business done during the period and on the debit side the cost price of that business. These two amounts in Profit and Loss account comprise a summary of all the separate merchandise accounts. The ledger now reflects the asset element of merchandise in the Merchandise Inventory account and the profit or proprietorship element in the Profit and Loss account. What was before a *mixed* record has been separated into its basic classification and can now be used in the drafting of the balance sheet and the statement of profit and loss.

Adjusting and Summarizing the Single Merchandise Account.—The second illustration covers the case where the stock-in-trade record is kept in one mixed account called Merchandise. Using the same data as in the other illustration, the account appears as follows:

Merchandise

19—				19—			
Jan.	1	Inventory	10,125.67				
June	30	Purchases	47,897.42	June	30	Sales	65,283.21
		Returned Sales..	3,924.83			Returned Purchases	2,125.40
		Sales Rebates and Allow.	392.48			Purchase Rebates and Allow.....	267.92
		Inward Freight and Cartage...	560.25			Inventory, June 30	11,267.40
		Profit and Loss..	16,043.28				
			78,943.93				78,943.93
June	30	Inventory......	11,267.40				

When the merchandise record is kept under separate accounts, the freight-in is *transferred* to the debit of the Cost of Goods Sold account; but when a single account is kept with merchandise, freight-in is usually entered directly to the debit of that account. To adjust the account when kept in this manner, the new inventory is entered to the credit of Merchandise. The balance of the

Merchandise account now shows the gross profit on sales, $16,043.-28. This is transferred to the credit of Profit and Loss. (It will be noted that this *transferred* item is identical with the *balance* of the Profit and Loss account of the first illustration.) The Merchandise account is now totaled and ruled off. On the debit side, beneath the ruling, the new inventory is entered, being the contra to the credit entry of $11,267.40 above the ruling. The equilibrium of debits and credits is thus maintained. In this open item of $11,267.40 the account shows an asset, the goods on hand June 30.

The handling of merchandise transactions according to the second illustration is not in accord with the best accounting practice, but is shown because it is frequently met with, particularly in small businesses where there is not the same need for detailed information concerning the different kinds of merchandising activities as in larger organizations.

Underlying Theory in the Adjustment of Merchandise Records.—Careful analysis and study of the adjustment of the merchandise records should be made in order to see the way in which the logic of the trading or merchandising section of the profit and loss statement is worked out in the ledger. The record of the merchandise asset should be kept, in strict theory, in the same way as that of every other asset, namely, the account should be charged with the full cost of the asset and credited at cost price with the portion sold, the profit or loss on the sale being carried in a separate account. The balance of the Merchandise account would then show the value of the asset, merchandise on hand, at any time. How this may sometimes be accomplished was explained in Chapter 9.

Theory, however, gives way to the practical difficulties of handling the account in this way. Therefore, periodically the mixture of asset decreases and income increases brought about through this practical method of handling merchandise records must be corrected, or "unmixed," so that these elements will appear separately. The Cost of Goods Sold account, after the opening inventory, purchases, inward freight, and purchase returns, rebates, and allowances are transferred to it, gives the

net total of the merchandise available for sale for the period. This net total represents two things: (1) merchandise still on hand, and (2) merchandise sold. By way of adjusting the records, the goods on hand, as shown by the physical inventory, are separated from the total and put into the Merchandise Inventory account, which shows by its title that it is an asset. That leaves in the Cost of Goods Sold account the *cost of goods sold*. The credits which should indicate the decrease in the asset, merchandise, equal to the cost of goods sold, are found in the net merchandise sales, as shown by the Sales account after transferring to it the sales returns, rebates, and allowances. But these credits are here mixed with the gross profit. The portion of the net sales representing the cost of sales of merchandise should now, in strict theory, be transferred from the Sales account to the Cost of Goods Sold account. This transfer would effect the balancing of the Cost of Goods Sold account, indicating that there are no merchandise asset values in that account, these having been transferred to the Merchandise Inventory account. The result of this theoretically correct procedure would be to bring about a segregation of the merchandise records into their two elements, the asset element as shown by the Merchandise Inventory account and the income element as shown by the remaining balance in the Sales account.

Once again, however, strict theory gives place to the more practical need of requiring the accounts to give full information for management purposes. Accordingly, instead of handling them in the way just indicated, the adjustment procedure explained on pages 124 to 128 is followed.

Handling Depreciation of Fixed Assets.—As shown in Chapter 9, the method of handling depreciation of assets consists of nothing more than separating the expense element from the asset element, both of which are carried currently under the title of the asset. For reasons explained in Chapter 9, the credit to the asset which effects the separation is not recorded in the asset account but in a supplementary account entitled "Depreciation Reserve" for the particular asset. This reserve account is an integral part of the asset record and must always be considered in connection with the asset account in determining the value of the

asset. The credit entry in the reserve account is a sort of suspended credit, recorded there temporarily for purposes of information. The offsetting debit to this credit is made in the expense account, Depreciation.

The adjustment entry thus effects a separation of the asset account into the two elements: (1) current value of the asset as shown by the asset account and its depreciation reserve account, and (2) the expense element recorded under the Depreciation expense account. The following illustration indicates the bookkeeping procedure:

FURNITURE AND FIXTURES

19—			
Jan. 1....................	750.00		

DEPRECIATION RESERVE FURNITURE AND FIXTURES

		19—	
		June 30................(A)	75.00

DEPRECIATION

19—		19—	
June 30................(A)	75.00	June 30 Profit and Loss. (B)	75.00

PROFIT AND LOSS

19—			
June 30 Depreciation ...(B)	75.00		

The asset, Furniture and Fixtures, valued at $750 at the beginning of the year, is estimated by appraisal to have depreciated 10%, or $75, during the half-year. This cost or expense is charged to an account called Depreciation, and credited not to Furniture and Fixtures, but to the valuation account, "Depreciaion Reserve Furniture and Fixtures." The Furniture and Fixtures account and its valuation account, *taken together,* show the appraisal value of $675. Thus the credit adjusting entry is made to record a decrease in asset values. The Depreciation account, carrying the debit of $75, is an expense account and is closed into Profit and Loss, just as any other expense account is closed.

The Estimate of Doubtful Accounts.—At the close of a fiscal period, when an accurate statement of the financial condition of the business is to be drawn up, all assets must be very carefully valued. The bookkeeping procedure necessary to show the correct value of fixed assets subject to depreciation has been explained. The outstanding claims against customers also require evaluation. Every business man knows from past experience that he will be unable to collect all of his outstanding accounts. He may not know which of the accounts will prove uncollectible, but he does know that there will be a loss in the sum total of these claims against customers. The amount of this estimate is based on past experience in each business.

A standard basis for the estimate is not possible because in some businesses credit is extended much more carefully than in others and in some collections are followed up more vigorously than in others. In making the estimate two methods are used, the one being a certain percentage of the net sales made during the period, the other a certain percentage of the outstanding accounts. Where experience shows the necessity, the loss from both outstanding accounts and notes receivable is provided for.

The same bookkeeping procedure is used here as with the estimate of depreciation. An expense account, usually entitled "Bad Debts," is debited, and an account called "Reserve for Doubtful Accounts" is credited for the amount of the estimated loss. The effect of the entry is to separate the claims against customers into their two elements, namely, the true asset element, represented by the difference between the asset account and its valuation reserve account, and the expense element as indicated by the Bad Debts account.

The following illustration sets forth the method of handling bad debts on the books of account:

Accounts Receivable

19—			
June 30	100,000.00		

Reserve for Doubtful Accounts

		19—	
		June 30 (A)	2,000.00

Bad Debts

19—			19—		
June 30.............	(A)	2,000.00	June 30 Profit and Loss	(B)	2,000.00

Profit and Loss

19—			
June 30 Bad Debts...	(B)	2,000.00	

It is known from past experience that the asset, accounts receivable ($100,000 in this instance), will not be collected in full. To bring this book value down to its real value, the loss, which it is estimated will amount to $2,000, is credited to a reserve account, which is always to be considered as a part of the asset account. The offsetting debit is to Bad Debts, an expense account. It represents an expense to be borne by the current period in which the sale is made and the credit extended. It is closed into Profit and Loss with other expense accounts.

Handling Prepaid and Accrued Expenses and Income.—In the buying of supplies and services, quantities are purchased which are seldom completely used up during the current period. Only that portion which the current period consumes should be charged as an expense of the period. Those portions which will benefit future periods should be deferred as charges to such future periods.

It is equally important that all supplies and services used by the current period, whether paid for or not, should be charged to the period.

It is also important that all income earned during the current period, whether actually received or not, should be credited to the current period; and all income received during the current period but belonging to future periods should be deferred to those periods.

The method of handling the estimates or inventories of these prepaid and accrued expense and income items is very similar to that shown for handling the single Merchandise account. Illustrations will show just how such items are to be treated.

Adjusting and Closing Prepaid Expense Accounts.—The Insurance account is taken as a good illustration of the method

of handling a prepaid or deferred expense. At the close of the period the account is a mixed account, the unexpired portion of the insurance representing an asset to be shown on the balance sheet as a prepaid expense, the expired or consumed portion representing an expense for the period to be closed into Profit and Loss. Let us assume that insurance has been paid in this case for a three-year term; hence only one-sixth of it is chargeable to the first half-year, the remainder being deferred to later periods. The amount of the inventory or unexpired portion is entered to the credit of the account in order to effect subtraction of the amount, the balance of $25 thereby showing the insurance expense for the current period. This balance is carried to Profit and Loss account. After closing the Insurance account, the inventory is entered to the debit side below the ruling, thus showing the so-called "deferred asset" portion which will appear in the balance sheet. By being placed below the ruling, this portion is in the Insurance expense account for the next period, at the close of which a similar adjustment will be made which will defer the then unexpired portion into the account for the next period, and so on until the insurance protection purchased has been entirely consumed. In this way the original cost of it is distributed equitably to the periods securing the protection.

INSURANCE

19—		19—	
Jan. 1 (Paid 3 yr. policy) .	150.00	June 30 (Unexpired)	125.00
		Profit and Loss....	25.00
	150.00		150.00
June 30 (Deferred)	125.00		

Adjusting and Closing Accrued Income Accounts.—The Interest Income account offers a good illustration of the method of handling accrued income items at the close of the fiscal period. In the case of accrued items, both income and expense, it should be noted that there is at the close of the period no record of them on the ledger. Unlike the handling of deferred items, where the problem is solely that of prorating the cost of the item already recorded to the periods to be benefited by it, the handling of accrued items requires first the making of a proper record

of them and then the closing of the current record and the preparation of the next period's record so that a convenient entry of the item can be made when received or paid, according as it is an income or expense item.

Accrued items are largely the result of specific contract or business custom. For example, when money is lent, it is usually agreed that payment for its use is to be made at convenient intervals, not at the close of each day although the interest earned accumulates or accrues day by day. Similarly, wages are, by business custom, usually paid weekly, semi-monthly, or at other convenient intervals. They are, however, earned day by day and the employer is liable for them. At the close of the fiscal period, the accumulations or accruals since the date of the last receipt of income or payment of expense comprise the amounts of these accrued items to be recorded in order that the period to which they belong may be credited or charged with them, as the case may be.

In the illustration below, it will be noted that interest income actually received has amounted to $127.50 and that there has accumulated by June 30 an earning of $17.50 which belongs to the current period although not due and payable until next period. This makes full earnings of $145 for the current period. The accrued item of $17.50 must, therefore, be entered on the credit side where it will be added to the $127.50. This total of $145 is now transferred to Profit and Loss, the account is ruled off, and the earned but not received portion is shown as a debit beneath the ruling. This will appear as an asset in the balance sheet, under the title, Accrued Income, representing a claim against the borrower for the amount of unpaid interest. This claim will not be collected, however, until sometime later when there will be a further accumulation of interest, all of which will be received in one amount next period. When that interest is received and recorded as a credit in the Interest Income account for next period—the portion beneath the rulings in the illustration below—it will be noted that that period will receive a *net* credit only for the portion earned during that period, the offsetting debit of $17.50 effecting this adjustment.

INTEREST INCOME

19—			19—		
June 30	Profit and Loss....	145.00	June 30	(Received)	127.50
				(Accrued, due us).	17.50
		145.00			145.00
June 30	(Accrued)	17.50			

Adjusting and Closing Deferred Income Accounts.— Income is sometimes received in advance of its being earned. Banks frequently take interest at the beginning of the loan period rather than at its close; landlords require tenants to pay rentals in advance; and newspaper and magazine publishing companies receive advance payments for subscriptions to papers and periodicals to be furnished in the future. The Rental Income account is a good illustration of the handling of these deferred income items. It is assumed that rent has been received for a period which extends beyond the current fiscal period. On June 15, rent for the period of, say, June 15 to September 15 was received. Only one-sixth of this income belongs to the current period ending June 30; therefore, the balance of $250 must be deferred or carried over to the next fiscal period. The adjustment is made by an entry of $250 for unearned rent on the debit side to effect its subtraction from the $300 credit shown in the account, thus reducing it to $50, the portion belonging to the current period. This income of $50 is transferred to the credit of the Profit and Loss account. After the Rental Income account is ruled off, the deferred income is entered below the ruling on the credit side, forming a part of the earnings of the next period. It is, however, to be shown among the liabilities in the balance sheet for the current period, usually under the caption of "Deferred Income," representing the liability of the owner to furnish to his tenant the use of the premises for the full period paid for. This account, therefore, is, before adjustment, a mixture of income and liability elements.

RENTAL INCOME

19—			19—		
June 30	(Unearned)	250.00	June 15	(Received)	300.00
	Profit and Loss....	50.00			
		300.00			300.00
			June 30	(Deferred)	250.00

Adjusting and Closing Accrued Expense Accounts.—Just as with accrued income items, there is at the close of the fiscal period no record on the books of these accruals of expenses. Accordingly, the record must be made, the account closed, and the new account for the next period must be prepared for convenient entry. How this is to be done is well illustrated by the Wages account shown below. This account shows wages paid to June 30 amounting to $2,125. At that date wages earned but not yet paid—perhaps because the pay-day did not coincide with the date of closing the books—amounted to $200. This item is obviously an expense of the current period incurred during the short interval between the last pay-day in June and June 30. The adjustment is therefore made by entering $200 on the debit side of the Wages account, to effect the *addition* of this sum to the expense already shown there. The total amount of the account is transferred to Profit and Loss and the account is ruled off. The amount of unpaid wages, $200, is shown on the credit side beneath the ruling. In the balance sheet it appears as a liability, usually under the caption of "Accrued Expense."

At the time of the next pay-day when the payment will be charged to Wages account, it should be noted that the "accrued expense" credit already in next period's section of the account will adjust this payment so that the new period will receive a *net* charge for only that portion of the payroll payment belonging to it.

WAGES

19—		19—	
June 30 (Paid)	2,125.00	June 30 Profit and Loss..	2,325.00
(Accrued, unpaid) .	200.00		
	2,325.00		2,325.00
		June 30 (Accrued)	200.00

Handling Mixed Expense and Income Account Adjustments.—Besides the four illustrations given above, there are many other accounts requiring the same kind of adjustment entries. In certain special cases it may be necessary to make adjustments on both sides, as for example, in a general expense account or in a mixed interest account showing both interest income and interest expense. For illustration a mixed interest account is shown. The

debit opening item of $100 in the new section of the account represents an asset, an interest claim against outsiders, while the credit opening item of $50 represents the liability to others for interest due them but not yet paid.

In such an account as this there might also be prepaid interest expense items and interest income items received ahead of their being earned. Such items would also require adjustment, necessitating an additional inventory entry on each side. For the sake of accuracy and clarity, however, the better bookkeeping practice is to keep separate accounts for Interest Income and Interest Cost.

INTEREST

19—			19—		
June 30	(Paid)	400.00	June 30	(Received)	500.00
	(Unpaid)	50.00		(Accrued, due us) ..	100.00
	Profit and Loss....	150.00			
		600.00			600.00
June 30	(Accrued)	100.00	June 30	(Unpaid)	50.00

Great care must be exercised in handling all of these adjustments for deferred and accrued items to maintain the equilibrium of the ledger by the entry of each amount to both the debit and credit sides. Under the methods shown—other methods will be explained later—it will be noted that both the debit and credit entry for each adjustment is made in the same account, the one, however, being made to the current section of the account, whereas the other is made to the new section below the rulings, this being the account for the new period, for it is not customary to rewrite account titles for each period unless the space allotted to an account has been entirely used up by the close of a period.

The student should make an analysis of each of these types of deferred expense and income adjustments in accordance with the basic debit and credit schedule shown on page 79, and see how such analysis is reflected by the adjusting entries.

Summarizing the Ledger—The Profit and Loss Account. —After all the types of adjustments have been made, the accounts in the ledger are restored to their fundamental classifications, namely: assets, liabilities, and proprietorship. There is now no

intermixture of these basic elements. The proprietorship group of accounts shows both the vested proprietorship, that is, the capital at the beginning of the period, and the temporary proprietorship, that is, the increases and decreases (as indicated by the income and expense accounts) during the current period.

As explained above, at the close of the fiscal period, when the temporary proprietorship accounts have served their purpose by showing the day-to-day changes in proprietorship and the results must be summed up, these accounts are closed for the current period so as to keep the records separate from those of the next period. For the purpose of summarizing the profit and loss group of accounts, an *account* called Profit and Loss is opened in the ledger and to it the balances of all temporary proprietorship accounts are transferred.

The Profit and Loss *account* in the ledger must not be confused with the formal *statement* of profit and loss, made up outside the ledger just as is the balance sheet. On the credit side of Profit and Loss will appear all credit or income account balances, and on the debit side will appear all debit or expense account balances. Accordingly, if the balance of the Profit and Loss account is a credit balance, it shows a net profit for the period; if a debit balance, it shows a net loss for the period.

The net profit or net loss shown by the Profit and Loss account represents either an increase or decrease in proprietorship belonging to the owner, and as such is transferred to the proprietor's personal account. As explained in Chapter 8, this account usually shows his drawings during the period against these profits as they were assumed to be accruing. The personal account thus indicates whether the amount which he has drawn out is larger or smaller than the net profits as determined by the Profit and Loss account. If his profits are larger than his drawings, his capital investment in the business has been increased by the amount of the credit balance in his personal account and the transfer of this balance to the credit side of his capital account will then show the total net worth of the business. If his drawings are larger than the profits, there is a decrease in capital, as shown by the debit balance of his personal account, and the transfer of this balance to the debit side of the capital account reduces the former capital amount.

The summarization of results at the close of a period is called "closing the ledger." The procedure consists, first, in a transfer, i.e., in a closing out, of all the temporary proprietorship accounts to the Profit and Loss account; second, in the transfer of the balance of this account to the owner's personal account; and third, in the transfer of the balance of the personal account to the owner's capital account. After all temporary proprietorship accounts, the Profit and Loss account, and the owner's personal account have been closed, the only accounts remaining open on the ledger are those showing either assets, liabilities, or capital. A formal statement of the balances of these accounts constitutes the balance sheet and a formal statement of the items in the Profit and Loss *account,* supplemented by information from the Sales and Cost of Goods Sold accounts, constitutes the statement of profit and loss.

Schedule of Procedure for Adjusting and Closing the Ledger.—In order to focus the student's attention on the several separate steps required at the close of the fiscal period for the adjustment and summarization of the period's operations, these steps are tabulated below.

1. The taking of a trial balance to prove the equation of the ledger.
2. The making of the necessary adjustments in the accounts to reflect the following items:

    (a) The merchandise on hand at close of period.
    (b) The estimate of uncollectible accounts.
    (c) The estimate of depreciation of fixed assets.
    (d) Accrued income items.
    (e) Deferred or prepaid expense items.
    (f) Accrued expense items.
    (g) Deferred income items.

3. The summarization of the Sales Returns and Allowances accounts in the Sales account.
4. The summarization of the various merchandise inventory and purchases accounts in the Cost of Goods Sold account.

5. The summarization in the Profit and Loss account of all temporary proprietorship accounts after taking effect of the preceding steps.
6. The transfer of the balance of Profit and Loss account to the appropriate vested proprietorship accounts. (In a single proprietorship, this step usually comprises a transfer first to the owner's personal account and then the balance of that account to his capital account.)

Illustrative Problem.—To give a complete picture of the adjustment of the ledger and the summarization of the accounts at the close of the fiscal period, a simple illustration will be given. Let it be assumed that the following trial balance shows the account balances of the ledger at the close of the year ending December 31, 19—, before adjustment.

TRIAL BALANCE, December 31, 19—

	Dr.	Cr.
Cash	$ 20,000.00	
Accounts Receivable	75,000.00	
Merchandise Inventory	25,000.00	
Investments	15,000.00	
Plant and Equipment	22,500.00	
Accounts Payable		$ 62,500.00
Mortgage Payable		17,300.00
Henry James, Capital		60,000.00
Henry James, Personal	8,000.00	
Sales		250,000.00
Sales Returns and Allowances	15,000.00	
Purchases	185,000.00	
In-Freight and Cartage	2,500.00	
Purchase Returns and Allowances		7,000.00
Salesmen's Salaries	16,000.00	
Advertising	3,400.00	
Sundry Sales Expense	1,800.00	
Office Salaries	3,300.00	
Insurance	1,700.00	
General Office Expense	2,100.00	
Interest Expense	1,400.00	
Interest Income		900.00
	$397,700.00	$397,700.00

The following information, necessary for the proper adjustment of the ledger, is available:

1. Merchandise inventory, December 31....	$27,500.00
2. Estimated loss from uncollectible accounts	2,500.00
3. Depreciation estimated at 4% per year...	900.00
4. Interest accrued on investments.........	100.00
5. Insurance unexpired	300.00
6. Interest expense accrued..............	200.00

The debit and credit analysis of these adjustment transactions shows as follows:

1. Merchandise:
   - (a) Opening Inventory: debit Cost of Goods Sold; credit Merchandise Inventory.
   - (b) Purchases: debit Cost of Goods Sold; credit Purchases.
   - (c) In-Freight and Cartage: debit Cost of Goods Sold; credit In-Freight and Cartage.
   - (d) Purchase Returns and Allowances: debit Purchase Returns and Allowances; credit Cost of Goods Sold.
   - (e) Final Inventory: debit Merchandise Inventory; credit Cost of Goods Sold.
   - (f) Sales Returns and Allowances: debit Sales; credit Sales Returns and Allowances.
2. Doubtful Accounts: debit Bad Debts; credit Reserve for Doubtful Accounts.
3. Depreciation: debit Depreciation; credit Depreciation Reserve Plant and Equipment.
4. Accrued Income: debit Interest Income (Accrued); credit Interest Income.
5. Prepaid Expense: debit Insurance (Deferred); credit Insurance.
6. Accrued Expense: debit Interest Expense; credit Interest Expense (Accrued).

In the above set-up of the debit and credit analysis, the parenthesis is used in transactions 4, 5, and 6 to indicate that the item is to be entered in the account beneath the amount total ruling in the new section to be used for the record of next period's transactions. The student should trace all these entries to the respective accounts.

The closing entries are transfer entries by means of which the balances of the various temporary proprietorship accounts are closed out to the summary account, Profit and Loss, and the net profit (or loss) as so determined is transferred from Profit and Loss to Henry James, Personal, the balance of which is in turn transferred to Henry James, Capital account. The debit and credit analysis of these transfer entries is as follows:

7. Debit Sales; credit Profit and Loss.
8. Debit Profit and Loss; credit Cost of Goods Sold.
9. Debit Profit and Loss; credit Salesmen's Salaries.
10. Debit Profit and Loss; credit Advertising.
11. Debit Profit and Loss; credit Sundry Sales Expense.
12. Debit Profit and Loss; credit Office Salaries.
13. Debit Profit and Loss; credit Insurance.
14. Debit Profit and Loss; credit General Office Expense.
15. Debit Profit and Loss; credit Depreciation.
16. Debit Profit and Loss; credit Interest Expense.
17. Debit Profit and Loss; credit Bad Debts.
18. Debit Interest Income; credit Profit and Loss.
19. Debit Profit and Loss; credit Henry James, Personal.
20. Debit Henry James, Personal; credit Henry James, Capital.

The ledger, with these various adjusting and closing entries shown—and cross-indexed by transaction number so the student may trace them easily—appears as follows:

Cash

20,000.00	

Accounts Receivable

75,000.00	

Reserve for Doubtful Accounts

	(2).... 2,500.00

Merchandise Inventory

25,000.00	(1a).. 25,000.00
(1e).. 27,500.00	

Investments

15,000.00	

Plant and Equipment

22,500.00	

Depr. Reserve Plant & Equipment

	(3)..... 900.00

Accounts Payable

	62,500.00

Mortgage Payable

			17,300.00

Henry James, Personal

	8,000.00	(19)..	25,000.00
(20)..	17,000.00		
	25,000.00		25,000.00

Henry James, Capital

			60,000.00
		(20)..	17,000.00

Profit and Loss

(8)	Cost of Goods Sold	178,000.00	(7)	Net Sales	235,000.00
(9)	Salesmen's Salaries	16,000.00	(18)	Interest Income ..	1,000.00
(10)	Advertising	3,400.00			
(11)	Sundry Sales Expense	1,800.00			
(12)	Office Salaries....	3,300.00			
(13)	Insurance	1,400.00			
(14)	General Office Expense	2,100.00			
(15)	Depreciation	900.00			
(16)	Interest Expense..	1,600.00			
(17)	Bad Debts	2,500.00			
(19)	To H. James, Personal	25,000.00			
		236,000.00			236,000.00

Sales

(1f).	15,000.00		250,000.00
(7)..	235,000.00		
	250,000.00		250,000.00

Sales Returns and Allowances

	15,000.00	(1f)..	15,000.00

Cost of Goods Sold

(1a)	Inventory	25,000.00	(1d)	Pur. Rebates and Allow.	7,000.00
(1b)	Purchases	185,000.00	(1e)	Final Inventory...	27,500.00
(1c)	In-Freight	2,500.00	(8)	Profit and Loss...	178,000.00
		212,500.00			212,500.00

Purchases

	185,000.00	(1b) .	185,000.00

Office Salaries

	3,300.00	(12) . . .	3,300.00

In-Freight and Cartage

	2,500.00	(1c) . . .	2,500.00

Insurance

	1,700.00	(5) . . .	300.00
		(13) . . .	1,400.00
	1,700.00		1,700.00
(5) (Def.)	300.00		

Purchase Returns & Allowances

(1d) . . .	7,000.00		7,000.00

General Office Expense

	2,100.00	(14) . . .	2,100.00

Salesmen's Salaries

	16,000.00	(9) . . .	16,000.00

Depreciation

(3)	900.00	(15)	900.00

Advertising

	3,400.00	(10) . . .	3,400.00

Interest Expense

	1,400.00	(16) . . .	1,600.00
(6)	200.00		
	1,600.00		1,600.00
		(6) (Accr.)	200.00

Sundry Sales Expense

	1,800.00	(11) . . .	1,800.00

Bad Debts

(2)	2,500.00	(17) . . .	2,500.00

Interest Income

(18) . . .	1,000.00		900.00
		(4)	100.00
	1,000.00		1,000.00
(4) (Accr.)	100.00		

After adjusting, summarizing and closing, a trial balance of the books will show as follows:

Cash	$ 20,000.00	
Accounts Receivable	75,000.00	
Reserve for Doubtful Accounts		$ 2,500.00
Merchandise Inventory	27,500.00	
Investments	15,000.00	
Plant and Equipment	22,500.00	
Depreciation Reserve Plant and Equipment		900.00
Accounts Payable		62,500.00
Mortgage Payable		17,300.00
Henry James, Capital		77,000.00
Insurance	300.00	
Interest Expense		200.00
Interest Income	100.00	
	$160,400.00	$160,400.00

It will be seen that this post-closing trial balance is an informal balance sheet.

CHAPTER 12

THE JOURNAL AND ITS SUBDIVISION

Insufficiency of the Ledger Record.—In an earlier chapter a business transaction was defined as an exchange of values, and the ledger as the book in which transactions are grouped under predetermined information titles or names. Thus, all transactions relating to machinery are grouped under the title "Machinery"; those relating to cash under the title "Cash"; those to purchases under the name "Purchases"; etc. Even in a small business the ledger may contain a large number of accounts, all necessary to give a clear-cut presentation of the volume and significance of business transactions.

The ledger record presents an analysis of transactions into their component elements, each transaction being classified and recorded, usually, in at least two ledger accounts, and frequently in more. Consequently, in order to learn the nature of a given transaction, to see it in its entirety, it may be necessary to refer to a number of separate ledger accounts. This process, even if the ledger is small, is not always easy; and when the ledger contains a large number of accounts, it becomes practically impossible.

A chronological record of business transactions is also quite convenient as oftentimes the date of a transaction is the main guide in locating its record and so the details of the happening. This type of day-to-day record of events in their entirety is manifestly not furnished by the ledger.

The ledger, as the most important record of transactions, is a constant reference book and should therefore be as concise as possible and convenient to use. To set forth in it all of the detailed explanations necessary to render its record at all times clear and intelligible as to the full significance of each transaction would unduly expand it and make it less convenient for ready use.

When a transaction is analyzed and recorded in the ledger, the account titles under which it is to be recorded must be determined before the record is made. It is oftentimes convenient to use such analysis as a guide or pattern for similar future transactions, and it is sometimes necessary to review the analysis when its correctness is questioned. It is desirable, therefore, to have a place or book of record in which the analysis of each transaction may be shown in its entirety before it has been lost through being recorded in several different places in the ledger.

For these several reasons, another type of record is desirable and quite necessary. This new record is not a substitute for the ledger record but is an addition and serves as a supplement to it by relieving it of much detailed explanation and, furthermore, presenting a kind of record which the ledger cannot give, viz., a day-to-day diary of events each in its entirety in one place.

The Book of First Record.—This other record shows in one place the transaction in its entirety; it gives a complete statement of the conditions and all other data relating to the transaction. It also shows the fundamental analysis of the transaction into its debit and credit elements under appropriate titles. As generally used, it is the book in which the first formal record of all business transactions is made. Usually it is not the very first record made of the transaction but it is the first record made in the formal books of account. The book in which this record is kept is called the "journal." The record as kept in the ledger is a secondary record based on the original or first record in the journal. Because it is a transcribed or secondary record, courts will not accept the ledger as evidence without verification.

Posting to the Ledger.—The act of transferring the original entry from the journal into the ledger is called posting to the ledger. In order not to lose sight of the original record in the journal, it is important that the ledger entry show by letter and number the book and page where the original entry can be found. This index is entered in what is called the reference column of the ledger account, which is just to the left of the money column. In this manner every entry in a ledger account has a reference to the original entry pertaining thereto. Similarly, in the journal an

index is made, in the reference or ledger folio column to the left of the money columns, of the ledger pages to which the transaction has been transcribed. In this way the transaction is cross-indexed in both records so that reference to either record from the other is easy.

The Journal.—A journal may be defined as a diary or log in which the happenings or transactions of a business are recorded in chronological order; that is, consecutively day by day as they occur. Formerly, it was sometimes called a day-book or blotter. As usually operated, however, the day-book or blotter contained a rough record giving all the essential data relating to each transaction without regard to accounting terminology, i. e., without regard to the formulation of the debit and credit of each transaction. The day-book entry was a sort of memorandum from which a formal record was made in the journal. This day-book or blotter, though still in use in some places, has very largely been discarded and only the formal journal is used. This latter was originally a single book but in modern accounting practice it has become separated into many special journals.

Characteristics of the Journal.—1. Being of the nature of a diary, the journal shows each day's transactions in consecutive order with little regard to grouping. The first characteristic, therefore, of the journal is that it is a book of chronological entry, a record of each transaction just as it takes place, with the entries made according to the dates of the transactions.

2. Another characteristic of the journal entry is that it is an analytical and classifying record. Before the entry is made, the transaction is analyzed into its two elements of debit and credit, determined according to the effect the transaction has in increasing and decreasing assets, liabilities, or proprietorship. The account titles used in the journal are the same as those used in the ledger and are selected on the basis of a detailed subclassification of the three fundamental groups of accounts. The degree of detail in classification depends on the desired minuteness of the information required. The guiding principle in giving these titles is to use such names as will tell truthfully and accurately what kind of information is recorded under each head. A journal

entry is, therefore, an analytical record as to debit and credit, which classifies the different elements of the transaction under such titles as will later be used in the ledger and which shows the money amounts belonging to each title.

3. A final and a very essential characteristic of the journal is that every entry should carry in addition to account titles, with their debit and credit amounts, a brief but complete summary or explanation of all the conditions and data relating to the transaction, so that, if referred to in the future, the journal record will call to mind the essentials of the entire transaction. This is particularly important and should never be omitted from the journal record.

Because of these three characteristics, and particularly the last two, the journal record is of prime importance.

Equilibrium of the Journal Entry; Compound Entries.—As explained in a preceding chapter, the debit and credit elements of all transactions must be equal in amount. Since the journal entry is an analysis of the transaction, it must obviously show equal amounts in the debit and credit columns. In case the analysis and classification require an entry consisting of more than one debit and one credit item, the total of the several debit items must equal the total of the several credit items. Such an entry is called a compound journal entry.

Standard Form of Journal.—The standard form of journal provides spaces for the following information: date, classification as to debit and credit, ledger index column, money columns to show both the debit and credit amounts, and full record of the essentials of the transaction. Form 8 illustrates a complete journal entry.

The date is sometimes shown in the middle of the first blank line; but it is better to place it at the extreme left. The account titles are placed on separate lines unencumbered with other data, because they are of first importance in posting. The name of the debit account is shown on the extreme left of what is termed the explanation column, with a uniform margin to the right for the credit account title. This uniform margin should be maintained throughout the journal, as only in this way is the credit account

JOURNAL

	Jan 19—	10	Notes Receivable	10	1,000	—		
			James Jackson	14			1,000	—
			60 day note payable at					
			First National Bank, Perry-					
			ville, Maryland, with					
			interest at 6% per					
			annum. Due March 10, 19—					

Form 8. Standard Form of Journal

title distinguished from the debit title. Failure to observe a marked differentiation between the relative positions of debit and credit account titles is the cause of many errors in the postings to the ledger.

The debit and credit amounts are placed in the left and right money columns respectively. Data giving full explanation of the entry are shown directly below the classified debit and credit entry, slightly to the right of the margin of the credit account title, and a uniform margin is maintained down the page. The column to the left of the money columns shows the ledger pages

10

Notes Receivable

Jan 19—	10	Due Mar 10 19 J	9	1000	—						

14

James Jackson

						Jan 19—	10	Note Due 3/10/19	J 9	1000	—

Form 9. Posting

to which the entry is posted. The entry is read thus: Notes Receivable, debit; James Jackson, credit $1,000.00.

The form of entry shown above is termed "journalization" or "journalizing." When instruction is given to "journalize" a transaction, it should be analyzed and set up in the form shown above, regardless of the particular special journal in which its journal record would be made in a given system of journals.

Form 9 gives an illustration of the above entry posted to the ledger. These accounts appear respectively on pages 10 and 14 and are posted from journal, page 9. The manner of cross-indexing should be noted.

Advantages of the Journal Record.—A tabulated statement of the advantages of using a journal record in addition to the ledger record may now be made.

1. It affords an easy reference to any transaction in its entirety and to all transactions on a given date.

2. It records in chronological order the debit and credit analysis of all business transactions and so prepares them for classified entry in the ledger.

3. It relieves the ledger of a mass of explanatory data, rendering it a book of summary and concise record.

4. Entry in the ledger is more convenient as once the transaction is recorded in the journal, posting of it to the ledger may be done at any convenient time.

5. Maintenance of the equation of the ledger is more certain, as interruption in the work of posting is not so apt to cause omission of entries which are already set up in the journal as would be the case were only a ledger record used.

Inadequacy of the Single Journal Record.—As explained above, every business transaction is first entered in a journal record. Originally, a single journal record was used for this purpose. This necessitated the making of a formal debit and credit entry for every item, many of which were of the same kind. As the object of every business is to sell something, during any business day a large number of sales, in consequence, had to be analyzed, classified, and entered separately. The entry in each case was a credit to Sales, and either a debit to the customer if the sale was "on time," or a debit to Cash if the sale was for

cash. It was soon perceived that instead of making a separate entry for each sale, one entry could be used for bringing into the books all the sales for a given day. This was accomplished by carrying a memorandum of the individual transactions until the close of the day when a formal summary or compound entry was made in the journal. Such a summary or compound journal entry is illustrated below:

A. Jackson	175.00	
D. Hayes	25.00	
J. M. Marshall	132.50	
T. P. Pollard	79.40	
I. M. Cranston	93.20	
M. V. Johnson	17.15	
Sales		522.25
To record the day's sales.		

The memorandum of each sale was made in a blotter to record the quantities and kind of goods sold but such entry formed no part of the double-entry record, being merely the source of information for the formal summary entry.

The Special Journal a Labor-Saving Device.—This use of the compound journal entry in connection with the blotter and journal was also made for the record of other kinds of transactions, with similar great saving of labor. Throughout the day in every business there is a large number of cash transactions—receipts and disbursements—which require a debit and credit record. Also purchases of merchandise, although not numerous for any particular day, comprise a large number of entries during the course of a month or year.

It was soon perceived that an even greater saving of labor might be effected and greater convenience and flexibility secured in the making of the journal record through the use of separate books for the record of these different kinds of transactions instead of the group or compound entries shown above. The original single journal was, therefore, divided into separate books known as special journals, each containing the original entries of a particular group of similar transactions, the number of books corresponding to the number of groups into which the various transactions might be conveniently divided.

For instance, where the policy of the business is to encourage the settlement of outstanding customers' accounts by notes, the use of a notes receivable book or journal effects a very appreciable saving of labor. Through the use of such a book, limited to a record of nothing but notes receivable, it is unnecessary to write each time a note is received, a complete journal entry as follows:

Notes Receivable..........................	1,500.00	
James Jackson..........................		1,500.00

Instead, the entry of Jackson's name in the notes receivable journal is in itself evidence of a debit to Notes Receivable account. Thus only the credit side of the entry need be shown, with appropriate explanation and detail, the entry of the formal debit being suppressed for the time being. When, however, the books are closed at the end of each regular period, the total of all these entries in the notes receivable journal is formally labeled "Notes Receivable, Dr." and posted to the debit of the Notes Receivable account. This procedure brings on the ledger one debit entry for the transactions of the entire month. The corresponding credits have been posted in detail day by day from their journal record.

So also, when it is the practice of the business to issue many of its own notes either in payment of purchases or for discount purposes, a "notes payable journal" may be used. The method of handling this book is similar to that of handling the notes receivable journal as described above. A similar procedure is followed in the case of sales, purchase, and cash receipt and disbursement transactions referred to above. The method of handling these four groups of transactions will be explained in detail in the chapters which follow.

Basis of Subdivisions.—The basis for dividing the single journal record into special journals is the relative frequency with which transactions of a similar nature occur. It would evidently be of no utility to create a special journal if the number of transactions to be recorded in it was small, as the saving in the labor of making the entries would be more than offset by the trouble of using an extra book.

Customary Subdivisions.—The special journals most frequently met with are those for purchases, sales, and cash. The

purchase journal contains the original entry of merchandise purchases, the sales journal the original entry of sales, and the cash journals the original entry of cash transactions. All *other* original entries are made in what is usually termed the general journal, to distinguish it from the other journals. For the sake of brevity, the general journal is often designated by the single term, "journal."

It should be thoroughly understood that no matter how many special divisions of the journal may be in use, such books combined with the general journal comprise the *journal* record of transactions. None of them is merely a memorandum record to be summarized and to be formally recorded later. The record made in each is formal, although abbreviated, and each must be posted completely, both debit and credit, in order to secure in the ledger a full record of all business transactions.

A brief explanation will be given in following chapters of the more simple forms of special journals.

CHAPTER 13

THE PURCHASE AND THE SALES JOURNALS

Types of Purchase Journal.—For recording purchases of stock-in-trade, a separate special journal called "purchase journal" is used. Sometimes this special journal takes the form of what is called an "invoice book," explanation of which is given later. The purchase journal is sometimes used to record all sorts of purchases, as for example, purchases of store and office furniture, fixtures, and supplies, of advertising and printing, and even of services such as labor, and of uses, such as the use of a building. Such use of this journal is more commonly made by manufacturing concerns than by mercantile houses and the journal is then usually known as a "voucher" or "accounts payable register," which is explained in Chapter 29. The present discussion is limited to the purchase journal as a record of purchases of stock-in-trade by a mercantile firm.

Analysis of the Purchase Transaction.—The debit and credit analysis of a transaction covering a purchase of stock-in-trade may result in either one of two groups of entries: (1) if the transaction is on credit, a debit to Purchases and a credit to either a personal account payable or to Notes Payable account; or (2) if the transaction is for cash, a debit to Purchases and a credit to Cash. Whether the purchase is on open account, on a note, or for cash, it is often desirable to keep the accounts in such a way as to indicate the vendor in each instance, and so be able to show the volume of business done with each creditor. This is accomplished when the purchase is for cash or for a note, by opening an account with the creditor in much the same way as when it is on open account.

Thus every purchase transaction is first recorded as follows:

(1) Purchases
Vendor

If the purchase is a cash purchase, the liability to the vendor is immediately canceled by the entry:

(2) Vendor
    Cash

The vendor's account is canceled by being credited and then immediately debited with the same amount. This leaves on the books as the net result of these two entries a debit to Purchases and a credit to Cash. This record of the transaction is seen, therefore, to agree with the analysis of the cash purchase transaction as previously explained.

If the purchase is on a note, the liability to the vendor as set up in entry (1) is immediately canceled by the entry:

(3) Vendor
    Notes Payable

The net result of these entries, (1) and (3), is seen to be a debit to Purchases and a credit to Notes Payable—a record which corresponds with the original analysis of the transaction.

Since a purchase on open account also results in a debit to Purchases and a credit to Vendor, it is seen that all types of purchase transactions may be recorded as a debit to Purchases and a credit to Vendor. Accordingly, in making the current record in the purchase journal, the debit element may be omitted, since it is always the same, and only the credit element, which differs in each case, may be set up. Periodically, usually at the close of each month, the debit element is formally set up for the total amount of purchases for the period. (See Form 10, a typical purchase journal.) Thus the one formal debit is made to offset the numerous credits set up during the month. The purchase journal is thus seen to be as fully a debit and credit journal as the general journal, even though in making its day-to-day record the debit element is, for the sake of economy in labor, omitted.

Other methods of handling the cash and note purchase transaction are explained on page 173.

Form and Method of Using the Purchase Journal.—The simplest form of purchase journal is the same as that of the standard journal. It provides space for date, classification, explanation, ledger index, and two money columns. In the purchase journal

the money columns do not have "debit" and "credit" significance, but the first may be used for the detailed extensions and the other column for the total of each purchase. Assume, for the sake of illustration, that the following purchases have been made:

January 10, 19—, from S. C. Bontell, terms 2/10, n/30:
5 tons hay @ $12.00
100 bu. corn @ .90
1,000 bu. wheat @ 1.10
30 tons coal @ 4.50

January 18, 19—, from P. V. Stewart, terms 2/10, n/30:
50 tons hay @ $12.00
130 tons coal @ 5.00

January 22, 19—, from I. S. Van Doren, terms n/30:
100 tons coal @ $ 4.50
600 bu. wheat @ 1.00

January 28, 19—, from S. M. Sax, terms 2/10, n/60:
510 bu. wheat @ $ 1.10

The purchase journal record, using the simple form of the standard journal, would be as follows:

	19— Jan.	10	B. C. Bontell					
			Terms, 2/10, n/30					
			5 t. Hay @ $12		60	—		
			100 bu. corn @ 90¢		90	—		
			1000 bu. wheat @ $1.10		1,100	—		
			30 t. coal @ $4.50	120	135	—	1,385	—
		18	P. V. Stewart					
			Terms, 2/10, n/30					
			50 t. hay @ $12		600	—		
			130 t. coal @ $5	125	650	—	1250	—
		22	I. S. Van Doren					
			Terms, n/30					
			100 t. Coal @ $4.50		450	—		
			600 bu. wheat @ $1	140	600	—	1,050	—
		28	S. M. Sax					
			Terms, 2/10, n/60					
			510 bu. wheat @ $1.10	131			561	—
		31	Purchases, Dr.	10			4,246	—

Form 10. Purchase Journal

Usually, however, a form of purchase journal is used which is better adapted to its purpose. In this, instead of giving the detailed explanation, the file number of the original invoice is written as part of the explanatory matter, which also gives the terms of the purchase. When a vendor's invoice is received, it is usually given a number for filing and reference purposes. These invoices are usually numbered consecutively as received and are entered in the same order in the purchase journal, after they have been checked against the goods received and prices and extensions have been verified. While practice in handling invoices differs, the procedure outlined above is fairly typical. This modern type of journal is illustrated in Form 11.

Posting the Purchase Journal.—In posting the purchase journal, it is customary to post daily the credits to the various vendor accounts as they are entered from day to day in the journal. In this way the true status of the amounts due these creditors may be known at any time by reference to their ledger accounts. The offsetting debit to Purchases account is posted only at the end of the month when the purchase journal is summarized. In the meantime the ledger is out of equilibrium because only the credit side of all purchase transactions has been entered in the ledger. This equilibrium is restored, however, by the monthly

DATE		NAME	INV. NO.	TERMS	FOLIO	AMOUNT		
19— Jan	10	S. C. Bontell	15	2/10, n/30	120	1385	—	
	18	P. V. Stewart	16	2/10, n/30	125	1,250	—	
	22	J. S. Van Doren	17	n/30	140	1,050	—	
	28	S. M. Sax	18	2/10, n/60	131	561	—	
	31	Purchases, Dr.			10	4246	—	

Form 11. Modern Type of Purchase Journal

posting of the debit to Purchases account which must always be made before the trial balance is taken.

An essential part of posting is the cross-indexing of the two records, the journal and the ledger. The cross-reference column in the ledger account must show the initial and page of the journal from which each item is posted. For example, "P. 10" in the ledger would refer to purchase journal, page 10. Likewise, the ledger folio (L.F. or Folio) column in the journal must show the ledger page of the account to which the item has been posted. Thus, in the illustration, Stewart's account is on page 125 of the ledger, where he is credited with $1,250. At the end of the month the purchase journal is footed and the summary entry, "Purchases, Dr.," is made and posted to the debit of Purchases account on page 10 of the ledger. This one debit item in the ledger brings about the equilibrium with the individual credits posted to the various personal accounts payable. The purchase journal is then ruled off and thus made ready for new entries for the next month immediately below the rulings.

Departmental or Other Analysis of Purchases.—When it is desirable to separate various classes of purchases so as to determine the profit from each class, particularly in a business which is departmentized, a purchase journal may be used similar to the one shown in Form 12, which has an additional money column for each class of purchases.

It may be laid down as a fundamental principle that the information desired by the management should be furnished from analytical records made at the time of original entry, rather than by analyzing a composite record at the time the information is wanted. Such analytical records make possible a quicker and more up-to-date report to the management, and they save labor in securing the information by making the analysis at the time of record when all the facts related to it are readily available. If there are three classes or departments, at least four money columns are required. The entry in the first column is for the total amount of the purchases; and the entries in the other three columns, which are headed each with the name of a class or department, are for the distribution from the total column of purchases of the respective departments. It is evident that the totals of these three col-

DATE 19—		NAME	INV. NO.	TERMS	L.F.	TOTAL		DEPT. 1		DEPT. 2		DEPT. 3	
Nov.	1	A. B. Colving & Co.	75	1/15, n/30	67	3,000	—	2000	—			1,000	—
	5	Daines Bros.	76	2/10, n/30	70	1,250	—	300	—	850	—	100	—
	30	Purchases, Dr.				10,125	40	4,269	80	3,197	25	2,658	35
								(94)		(95)		(96)	

Form 12. Departmental Purchase Journal

umns, added together, must at all times be equal to the total of the first column. This affords a check on the accuracy of the distribution. At posting time a separate account is opened in the ledger corresponding to each of these classes of purchases. The summary entry in a purchase journal of this kind appears as shown in Form 12.

Note how the summary entry is made. In this case there are three purchase accounts in the ledger, viz., Purchases Dept. 1, Purchases Dept. 2, and Purchases Dept. 3. To each of these is posted the total of its column in the purchase journal. These three debits offset the individual credits posted throughout the month and so establish the ledger equilibrium. The grand total, i. e., $10,125.40, is not posted. Note how the cross-indexing of the postings is shown, these several Purchase accounts appearing, as indicated, on pages 94, 95, and 96, of the ledger. Where the number of departments is small, the summary entry might be stated in full somewhat as follows with the cross-indexing shown in the regular folio column:

Purchases, Dept. 1, Dr.			94	4,269.80
Purchases, Dept. 2, Dr.			95	3,197.25
Purchases, Dept. 3, Dr.			96	2,658.35

With a large number of departments, however, the wastefulness and inconvenience of such a formal summary are apparent.

Purchases are classified under separate titles, usually because it is desirable to make a corresponding classification of sales and so secure results of operation for each class of merchandise or of each department.

The Invoice Book.—An early type of purchase journal was called the "invoice book." This was usually a big, loose-bound coarse paper volume in which were pasted the invoices for goods bought. An extension column was provided for the amount of the invoice, and the total of this gave the purchases for a given period. The use of columns for various classes of purchases provided the required analysis, but, as it was a cumbersome, nondescript record, it was bound to give place to something better—the

formal purchase journal or register of today, one type of which was described above.

Handling Expenses Through the Purchase Journal.—As mentioned on page 156, it is the practice of some concerns to treat expenses such as labor, rent, salaries, supplies, etc., as purchase transactions. Under this method, instead of postponing the entry until the item is paid, record of it is made at the time of securing the service or supplies. The basis for the entry may be either: (1) the bill or purchase invoice; (2) a formal purchase memo or voucher made out by the business for each such transaction; or (3) the fact that the expense has been incurred may suffice for the entry on the books with no formal paper to vouch for it. The use of such formal papers as the basis for entry is known as the voucher record system. The details of this system are explained in Chapter 29. Discussion is here limited to a brief outline of the method and of the advantages of its use.

When expense invoices are entered and analyzed in the voucher record form of purchase journal, their posting requires debits to the various expense accounts and credits to the individual creditors' accounts in the ledger. This form of analytical purchase journal has distributive columns for each of the various expense and other accounts to be charged. Posting to these accounts is made by their column totals as explained in connection with the departmental purchase journal on page 162. When the bill is paid, entry in the cash book will not be, as usual, to the debit of the expense account in the general ledger, but to the debit of the creditor's account.

The entry of expense invoices in the above manner secures an immediate record of all liabilities as incurred and therefore makes the books show at all times the true state of affairs as regards liabilities. The method, however, necessitates a little more work in making the record, and for this reason many concerns do not enter expenses until paid, making the debit to them through the cash book. In this latter case, all unpaid expense bills should be kept in an expense file for reference when information as to the unrecorded liabilities is desired.

The Sales Journal—Analysis of the Sales Transaction and Method of Record.—For recording sales of stock-in-trade, a record called the "sales journal" is used, which is limited to recording sales of merchandise. A sales journal practically identical in form with the purchase journal serves this purpose. Its columns are ruled and current entries are made in it just as in the purchase journal.

The analysis of a sales transaction shows a credit to Sales and a debit either to Customer, Cash, or Notes Receivable, according as the sale is "on time," for cash, or against a note given by the customer. In handling cash sales and sales against the customer's note, the same procedure is followed as with purchases, i. e., accounts with customers are opened for *all* sales, and are immediately closed off if cash or a note is received at the time of the sale.

The current entry in the sales journal shows only the debit item, i. e., the charge to the customer's account, the credit to Sales account being omitted. At the end of the month, however, the total of all sales is indicated by the summary entry and is posted to the credit side of the Sales account in the ledger. In order to keep the customers' acoounts up to date, the current entries in the sales book, giving the names of the customers and the amounts, are transferred to the customers' accounts in the ledger at the close of each day.

Summarization of the Sales Journal.—At the end of the month or other posting time, the sales journal is totaled and the summary entry is made and posted, thus bringing the ledger into equilibrium by one credit to Sales account for the sum of all the debits to customers' accounts made day by day. The closing rulings are then made. The treatment is exactly similar to the work in the purchase journal, the only difference being in the summary entry, where "Sales, Cr." takes the places of "Purchases, Dr." If it is desired to keep the sales record by departments or classes of commodities, analysis columns will effect the distribution. In this type of sales record, the closing summary may indicate the various departmental or other sales accounts to which postings are to be made, instead of the one general account, Sales, precisely

as the departmental purchase journal may indicate the departmental or other purchases accounts to which purchase entries are to be posted. The better procedure, however, is that shown in the illustration, Form 12 (page 161), where the column totals are posted without formal statement of departmental purchase account titles.

Other Types of Sales Journals.—In practical use one finds many different types of sales journals, the basic principle of all of them, however, being the same in that they effect a charge to the customer and a credit to Sales account. A brief description will be given of some of these types of sales journals.

1. The earliest type of sales journal, not often used today, consisted of a letter impression book containing the press copy of invoices sent to customers, with columns for the extension of the amounts and sometimes with additional columns for purposes of analysis. Such a journal has the advantage that the original entry is an exact copy of the invoice. Oftentimes, however, the impression is poor and nearly or quite illegible; it takes much room; the detail shown is not often used; and it increases the work of making and handling the record.

2. Another method makes use of a perforated invoice book with a columnized interleaf solid-bound between the perforated invoice sheets. The sales invoice is written on one of the perforated sheets and a carbon underneath gives a duplicate on the interleaf, the latter constituting the formal sales record. The advantages and objections are practically the same as for the impression book method.

3. Another method is to make a separate carbon copy of each invoice and use the duplicate as the source of entry in the sales journal. The journal entry gives only the file number of the duplicate invoice so that in case of need the duplicate can easily be referred to. Such a sales journal may, of course, contain analytical columns with any desired heads.

4. Still another method uses the duplicate invoice for posting to the customer's account, after which it is filed in binders. The latter are usually provided with recapitulation sheets which show the totals and analysis for each day, week, or month as the case

may be. Just as above, the invoice file provides the detail in support of the ledger account and the recapitulation sheets constitute the journal from which credits to the various sales accounts are made. Either one of these last two methods eliminates most of the objections and embraces most of the advantages of the other methods mentioned above.

Where several sales ledgers are used, the sales journal is sometimes subdivided on the same basis as an aid in posting and for the purpose of securing controlling figures as will be explained in following chapters.

Goods Sold to the Owner.—The treatment of goods sold to the owner of the business requires brief consideration. The proprietor usually withdraws goods at cost price. There is thus no element of profit in the transaction as there is in other sales. A strict analysis of the transaction shows that it brings about only a decrease of the asset unmixed with any element of income. Theoretically, then, such transactions should not be recorded with the regular sales, but should be shown as a credit to Purchases account. In practice, however, entering them in the sales journal is the easiest method of recording them, and since they are not usually large in volume, this method does not vitiate the total sales figure as a basis for estimating percentages of profit. This matter is discussed briefly on page 237.

Because of the small inaccuracy occasioned thereby, the practice is sometimes followed of charging the proprietor with the selling price of the goods withdrawn, entry of them being made in the sales journal as a regular sale.

Returned Goods and Allowances.—Goods purchased sometimes prove unsatisfactory upon receipt and are returned to the vendor or claim is filed with the vendor for a rebate or allowance from the contract price if the goods are retained. Similarly, customers sometimes return goods sold them or make claim for rebate of the invoiced price. If the number of these transactions is sufficient to justify it, separate special journals should be used for the record of them. A brief explanation of such journals follows.

The Purchase Returns and Allowances Journal.—A purchase return or allowance transaction when analyzed shows a charge to the vendor—the original creditor—and a credit to Purchase Returns or Purchase Rebates and Allowances account. These two accounts are often merged in one called Purchase Returns and Allowances. Where a special journal is used for such transactions, only the debit element of each need be entered currently. At the close of the month, the journal is summarized and the credit element, Purchase Returns and Allowances, is formally set up for the amount of the total of the journal.

The form of the journal is exactly similar to that of the purchase journal shown above and will, of course, in a given business carry distributive columns if the purchase journal does. It will be noted, however, that the debit and credit scheme of this journal is of opposite effect to that of the purchase journal.

The Sales Returns and Allowances Journal.—The use of any special form of sales journal, particularly if it provides for an analysis of the sales, requires a similar record of sales returns and allowances. Either a separate book, similar in form to the sales journal, may be employed for recording these items, or the pages in the back of the sales journal may be used instead. The manner of handling this journal is similar to that of the purchase returns and allowances journal just explained.

CHAPTER 14

THE CASH JOURNALS

The Cash Book.—For recording transactions involving cash, two journals are used. One of these records receipts and the other disbursements of cash. They are known respectively as the "cash receipts journal" and the "cash disbursements journal." Instead of being separate books, however, they are frequently bound together and comprise what is called the "cash book." When bound together their pages alternate throughout the book. The cash receipts journal occupies the left-hand pages, i.e., the even numbered pages—2, 4, 6, etc.—and the cash disbursements journal the right-hand pages—3, 5, 7, etc.—page 1 not being used. This method sets up the cash record, receipts and disbursements, on facing pages and the movement of cash is thus under easy and constant review.

The Cash Receipts Journal—Analysis of a Cash Receipt.—If $100 cash is received on account from John Doe, a customer, an analysis of the transaction shows "Cash" debit and "John Doe" credit.

Cash	100.00	
John Doe..................................		100.00

So with all receipts of cash; the "cash" element is a debit. The record of cash receipts being made in a journal devoted exclusively to receipts of cash, the "Cash, Dr." element of the entry may be omitted currently and only the "credit" element need be shown; the very fact that the entry is made in the cash receipts journal is sufficient to indicate that "Cash" is a debit. The cash receipts journal (Form 13)—the left or debit side of the cash book—is operated, therefore very much like the purchase journal.

The Cash Disbursements Journal—Analysis of a Cash Disbursement.—If $50 is paid for expenses of some kind, the analysis gives "Expense" debit and "Cash" credit.

Expense	50.00	
Cash		50.00

So with all disbursements of cash. A separate journal being devoted exclusively to cash disbursements, the "Cash, Cr." element of the entry may be omitted currently and only the debit shown. The cash disbursements journal is thus seen to be operated in the same way as the sales journal.

Thus, all left-hand pages in the cash book show receipts and all right-hand pages show disbursements. Because it is unnecessary to *write* the debit element of cash received and the credit element of cash paid out, a great saving of labor is effected. Nevertheless, it must be remembered that the entry on either side of the cash book is essentially a journal entry, and that the missing elements—cash debit on the left page and cash credit on the right page—are supplied at the end of the period by the totals when the two journals are summarized in preparation for posting to the Cash account in the ledger.

Form of the Cash Journals.—In the cash journals, just as in all other journals, provision is made for date, account classification, explanation, ledger posting index, and money columns. In a simple form of cash book, just as in the purchase and sales journals, two money columns are usually provided, the one for detail—a day's, week's, or month's detail—and the other for totals. Such a form is shown in Forms 13 and 14. Because the two journals are so frequently bound together and show as facing pages of one record, they are usually treated as a consolidated record and balanced periodically like a ledger account. This practice affects the method of summarizing the cash receipts journal. The student should note carefully how this journal is summarized. The balance of cash brought forward from the previous week is entered in the second or total column so that the detail column shows only the current week's receipts. Inasmuch as the Cash account in the ledger already shows the balance of cash at the beginning of the week, i. e., $5,000, this amount must not be

CASH

DR.

Date		Acct. Classification (Credit)	Explanation	L. F.		Amounts	
19– July	1	Balance	Bro't forward	✓		5000	–
	2	Sundry Customers	Cash Sales	15	125 –		
	3	Commissions Earned	Sale of real estate	20	150 –		
	5	J. B. Jackson	On account	25	15 –		
		Sundry Customers	Cash Sales	15	140 –		
	6	Interest Income	1 year on mortgage	21	175 –		
		Cash, Dr.		1		605	–
						5,605	–
July	8	Balance				5,240	–

Date Acct. Classification (Credit) Explanation L. F. Amounts

Form 13. Cash Book (left-hand page)
(Cash Receipts Journal)

included in the summary entry for the current week. In summarizing the cash receipts journal, therefore, the total only of the detail column, showing the cash received since the last sum mary, is set up as a "Cash, Dr." item. In summarizing the cash disbursements journal, since there is normally no balance carried over from the previous week, the total of the journal—representing the cash disbursed since the last summary—is set up as a "Cash, Cr." item. This is shown as $365, the amount being posted to the credit of the ledger Cash account on page 1.

Cash Book Taking the Place of the Cash Account.—Because the two cash journals are set up on facing pages, the record contains essentially the same information as a detailed Cash account in the ledger. The double-page record brings together both the receipts and the deductions from receipts—cash being normally a debit account. For this reason, the cash book record is itself sometimes used as a ledger account and when it is so used its totals are not posted to the ledger account. The balance of the cash book must, however, be included in the trial balance of the ledger, because when so used the cash book is not only a *journal* but a *ledger account* as well.

When, however, the totals of both cash receipts and disbursements are posted to a Cash account in the ledger, the balance

CASH

CR

	Date		Acct. Classification (Debit) Explanation	L. F.	Amounts			
	19— July	1	Rent Store rent July	18	50	—		
		2	Stationery	20	10	—		
		3	Sundry Creditors	16	250	—		
		5	A. Conners Withdrawal	10	15	—		
		6	Salaries Clerks	19	40	—		
			Cash, Cr.	1			365	—
			Balance	✓			5,240	—
							5,605	—

Form 14. Cash Book (right-hand page)
(Cash Disbursements Journal)

used in the trial balance is taken from the ledger account and not from the cash book, although of course the balances in both are the same.

Whichever of these two methods is used, it must always be remembered that the cash book is essentially a journal and that, therefore, its classifications of business transactions must be transferred to their proper accounts in the ledger.

Best accounting practice, however, requires that a Cash account be carried in the ledger so that the ledger will be a complete record of all transactions and will be independent of all other records for proof of its equilibrium.

Posting the Cash Book.—In posting the debit side of the cash book to the ledger, it is important to remember that the debit element of the transaction is merely indicated by the fact that the entry appears on the left-hand page of the cash book. The account name written in the Account Classification column is the credit element and its amount must be posted to the credit of the corresponding account in the ledger. Similarly, on the right-hand side of the cash book, the cash credit element of the entry is suppressed and the amount of the named account should be posted to the debit of the corresponding ledger account.

After the posting of the individual items has been completed,

the "Cash, Dr." and the "Cash, Cr." as shown by the summary entries must be posted to the ledger Cash account, as explained on page 170.

As stated above, each side of the cash book is, in reality, a journal in itself—a cash receipts journal and a cash disbursements journal—and it is only because these two journals are shown side by side that the cash book is sometimes made to serve the purpose of a ledger Cash account.

Balancing and Ruling the Cash Book.—The cash book in its simple form is balanced and ruled in the same manner as a ledger account. When the balance is brought down to the new section, it is usually entered in the second or total column, thus reserving the first or detail column for the current period's cash receipts, and separating these items from the balance brought down from the previous period. (See Forms 13 and 14.)

When the record is to be transferred to a new page, either the current page (double page) is balanced and ruled and only the balance is carried forward, or the current page is totaled and both debit and credit footings are carried forward as shown in Chapter 10 for the ledger cash account. The cash book is closed, ruled, and transferred as of the same date and on the same line for both sides, although usually there is room for more entries on one side or the other, which may be closed by diagonal ruling. This is done in order to keep the record of the receipts of a given period and that of the disbursements in nearly exact juxtaposition, and thereby facilitate a review of the cash movements for that period.

The Cash Short and Over Account.—It sometimes happens that when the cash book is balanced, the amount which ought to be on hand as shown by this balance, does not agree with the amount of cash on hand as shown by actual count. The discrepancy may be due to failure to enter some items of receipts or disbursements in the cash book, or to errors in making change; or it may be due to petty thieving by the cash clerk. If the error cannot be rectified at the time, an entry is made in the cash book, on whichever side necessary, in an amount sufficient to bring the book balance into agreement with the actual cash balance. The

account to be debited or credited, as the case may be, is entitled "Cash Short and Over." If the correct charge or credit is afterward determined, the item or items should be transferred from Cash Short and Over to their proper accounts. Usually the Cash Short and Over account is treated as an income or expense account and closed into Profit and Loss at the close of the period. Sometimes it is treated as an asset or liability account, depending upon the nature of its contents, i.e., the amount of the discrepancy shown and its probable cause.

The Cash Purchase and Sales Transactions.—A standard method of handling the cash purchase transaction when it is desired to keep a record of the volume of business done with each vendor was explained on page 157, where the purchase was shown to be "washed" or cleared through the vendor's account. A more direct method is sometimes used.

When purchases are made for cash, a complete record of the transactions is made by the entry:

Purchases
    Cash

Here there is evidently a conflict of places of original record. The transaction being a purchase, record should be made in the purchase journal; and since it is also a cash transaction, record should also be made in the cash book. However, if an independent record were made in both places, a duplication of the transaction would result, since entry in either journal is a complete debit and credit record. The transaction would be entered twice in full, causing an inflation of the purchases and cash disbursements. In the purchase journal, the credit to Cash would be set up at the time of the transaction and at the time of summarization the debit to Purchases would be included in the total of the Purchases, thus completing the ledger record. In the cash book, the debit to Purchases would be set up at the time of the transaction, and when the summary was made the credit to Cash would be in the Cash total. Entry in both journals would, when posted to the ledger, bring about two debits and two credits for the same transaction.

To overcome this difficulty, the following methods are commonly employed:

1. The record is made complete in both journals, but the credit to Cash from the purchase journal record is *not* posted, because that credit will be posted from its record in the cash book. Similarly, when posting the cash disbursements journal, the debit to Purchases is *not* posted, because that will be posted from the purchase journal. In this way, original record may be made in both journals and each journal will then show by its total what it is intended to show, viz., total purchases and total cash disbursed, respectively. In the secondary record, the ledger, only half of each journal entry is set up, the debit to Purchases from the purchase journal and the credit to Cash from the cash book. This prevents the inflation mentioned above and does not affect the equilibrium of the ledger because there is omitted, when posting from the cash book, a debit equal in amount to the credit omitted when posting the purchase journal.

2. The method explained on page 157 is used with this variation: The record in each journal shows the individual vendor's account, but at posting time no vendor account is set up in the ledger, neither the credit to the vendor's account shown in the purchase journal nor its offsetting debit shown in the cash disbursements journal being posted.

It is necessary, when making the original entries in the journals, to indicate all postings which are to be omitted, by entering a check mark, √, or a cross, X, in the ledger folio column of the journal. It should be noted that this check mark is entered at the time the entry of the transaction is made and not at posting time. This prevents unnecessary postings and delay at posting time.

The purchase on a note payable, one method of recording which was explained on page 157, may also be handled more directly by either of the methods explained above for a cash purchase. In the case of the note, however, the journals used are the purchase and general journals, or the special notes payable journal if one is in use.

Similar methods are employed, also, for handling the cash sale and the sale against a customer's note.

It will be noted that in Forms 13 and 14, use is made of accounts with Sundry Customers and Sundry Creditors for handling cash sales and purchase transactions.

Columnar Analysis of Cash Receipts and Disbursements.—As illustrated in the chapter on purchase and sales journals, additional money columns are often used for the purpose of analyzing the purchases and sales by departments or classes of commodities. A similar analysis of both the cash receipts and cash disbursements may aid in segregating certain classes of cash items and thus save labor in posting. Of cash receipts, two classes are usually more active than all others combined. More cash is received from cash sales and from customers on account than from any other source. Accordingly, two additional columns may be used with these headings. *All* cash receipts must be entered in the Total, Bank, or Net Cash column, as it is variously termed, and then distributed into any special columns provided. Thus all "Cash Sales" would be extended, both in the Net Cash and in the Sales column, and all receipts from customers would be entered in the Net Cash and in the Accounts Receivable column.

In the case of cash disbursements, the number of columns depends upon the degree of analysis desired. At least two additional columns are frequently found, one for creditors and one for expenses. Where cash purchases are numerous they may be segregated, or where any particular *class* of expense is of frequent occurrence it may be shown in a separate column. Where one ledger is used for customers, creditors, and general accounts, there is little gain in segregating customers and creditors by special columns in the cash book, except as a slight aid in posting. Where separate ledgers are used, it is important to have separate customer and creditor columns in the cash book, as will be shown later in connection with the subject of controlling accounts. Illustration and explanation of the columnar cash book are given on pages 178–182.

Cash Discounts Analyzed.—Sales and purchase discounts comprise another class of transactions best handled through the cash book, although, strictly speaking, they are not cash trans-

actions. When a customer buys goods on account, he is usually offered two bases of settlement, depending on the length of the credit term allowed. Thus, 2% off is frequently allowed if payment is made within 10 days; otherwise the full amount of the invoice must be paid. Because the vendor does not know, at the time of entry on his books, on which basis settlement will be made, he makes the charge at the full invoiced amount. If the customer takes advantage of the discount offered, he pays less than the amount at which his account stands debited, yet the vendor must credit his account for the full amount of the original charge, in order to cancel his entire claim against the customer. To illustrate, a customer buys $100 worth of merchandise, with 2% off if paid within 10 days. On the 10th day he pays $98. The sale entry would be:

(1)	Customer	100.00	
	Sales		100.00

The cash entry would be:

(2)	Cash	98.00	
	Customer		98.00

But this does not cancel in full the $100 claim against the customer. The $2 discount, an allowance for early payment, is an expense to the business and must be charged to an expense account called "Sales Discount," and the customer must be given $2 additional credit, the entry being:

(3)	Sales Discount	2.00	
	Customer		2.00

Entries (2) and (3) are usually combined in one as follows:

(4)	Cash	98.00	
	Sales Discount	2.00	
	Customer		100.00

Entry (4) is known as a compound entry. If entry (2), which is the part involving cash, is made in the cash book, then the additional entry (3) will have to be made in the general journal because there is no cash element in it and theoretically nothing but cash should be recorded in the cash book.

Handling Discounts in the Cash Book.—This recording in two separate places of what is reallv one transaction has led to

the introduction into the cash book of a non-cash column in order to bring the whole transaction together. The customer's payment being a receipt of cash, the record must be made on the debit side of the cash book. Reference to entry (4) shows that Sales Discount is also a "debit." Where the cash book is limited strictly to cash transactions, the cash debit record shows only the "credit" element of the entry. The use of a Sales Discount column on the debit side of the cash book for the sake of making a complete record in one place thus introduces an extraneous element, one out of harmony with the other entries made there. In posting, great care must be exercised not to transfer Sales Discount to the credit side of its ledger account but to the *debit* side. (See Form 15, page 180.)

Alternative Treatment for Cash Discounts.—Sometimes another treatment of sales and purchase discounts in the cash book is met with. This treatment for sales discount is based on the fiction that the full amount of the original charge is received from the customer and that an immediate return is made to him of the amount of the discount. To use the example cited on page 176, the entries would be:

Cash	100.00	
Customer		100.00

showing receipt of the full invoice price and therefore full credit to the customer; and

Sales Discount	2.00	
Cash		2.00

representing the fictitious payment in cash of a discount on sales of $2. In the cash book these two entries would appear as follows:

Dr. CASH		CASH Cr.	
Customer	100.00	Sales Discount	2.00

This method of entering discount on sales would have the same ultimate result in the ledger as the columnar method, but the objection to it is that it makes the cash book show more money received and paid out than has actually been the case, thus making it difficult to check the cash against the bank record of deposits and checks. Another objection is that by this method

the cash book does not show in one place a full record of the transaction, since the two items are shown on opposite sides of the cash book. Moreover, these items are seldom on contiguous lines because one side of the cash book is often considerably "ahead" of the other. Cash discount on purchases is sometimes handled by a similar unsatisfactory method.

The first method shown, requiring special discount and net columns on either side of the cash book, is the approved method.

Illustration and Explanation of the Analytic Cash Receipts Journal.—An example of a columnar cash book debit side is given (Form 15) for the purpose of illustrating some points in the discussion. It should be understood that there is little uniformity in the columnization of cash books. The needs of the business govern the ruling suitable in any given case. The illustration (page 180) is, therefore, not presented as a standard form but is given only for the purpose of illustrating the method of analysis of cash receipts.

As shown in the illustration, all *actual cash receipts* are entered in the Net Cash column, which in connection with the Sales Discount column comprises the total corresponding to the Total column of the other subsidiary journals in which distributive columns are used. All items received from customers are entered in the Accounts Receivable column; but it is important to note that the *amount* entered in that column is not the *actual cash receipt* but *the full amount* of the original charge to the customer. Sales discount, if any, is entered in the Sales Discount column, and the *net* amount, the actual cash received from the customer, is the amount appearing in the Net Cash column. Cash sales are entered in the Cash Sales column and also in the Net Cash column. All other kinds of receipts are extended to the Sundry column.

In the ledger folio column, checks are placed for the individual cash sales entries, the posting usually being made from the summary in the sales journal, as explained in the next topic, or from the total of the Cash Sales column in the cash book if the other method is not employed. In the summary entry of the illustration, it is assumed that a Cash account is kept in the ledger. Hence, "Cash, Dr." is shown posted to ledger Cash account on page 4;

and the total Sales Discount, also *debit*, on page 20. The student should note the method of showing the amount of cash received during the current week, this amount comprising the "Cash, Dr." posting to the ledger Cash account. Of course, the itemized credits, except the cash sales, are posted to their respective accounts, as indicated in the ledger folio column.

The use of the Sundry column for extension of the miscellaneous items makes proof of the distribution possible. The sum of "Net Cash" and "Sales Discounts"—both debit items—must equal the sum of all the other columns.

Handling Columnar Analysis of Cash Sales.—If all sales, both cash and "on time," are entered in the sales journal, the totals of these two classes of sales are posted to the ledger Sales account from the summary in the sales journal. In this case there is no need of a separate Cash Sales column in the cash book, because such a column would simply duplicate the Cash Sales entry in the sales journal. Needless to say, cash sales always appear in the Net Cash column of the cash book, because they are cash receipts, but the "Ledger Folio" must be checked.

Sometimes two sales accounts are kept in the ledger, one for cash and the other for "time" sales. Here, also, if there is a Cash Sales column in the sales journal, no posting of cash sales from the cash book is necessary. On the other hand, if cash sales are omitted from the sales journal, then the cash book should provide for a Cash Sales column and the posting must be made from the total of this column in the cash book.

Illustration and Explanation of the Analytic Cash Disbursements Journal.—The cash disbursements columnar record corresponding to the cash receipts shown above, would appear as in Form 16. As with cash receipts, the illustration is not presented as a standardized form but merely for the purpose of showing the method of analysis. Postings are made or omitted, and the same considerations govern the making and posting of the summary entry, as in cash receipts. Being few in number, cash purchases are not shown in a separate column. The treatment of discounts received on purchases is exactly similar to that of sales discount.

DR. **CASH**

DATE	ACCOUNT CLASSIFICATION	EXPLANATION	L.F.	SUNDRY	CASH SALES	ACCOUNTS RECEIVABLE	SALES DISCOUNT	NET CASH
19— July 1	Balance	Brot. Forward	✓	5,000 —				5,000 —
2	Sales		✓		346 75			346 75
3	Sales		✓		427 40			427 40
5	J. B. Jackson	Inv. 7/1 at 2/5	25			125 —	2 50	122 50
	Sales		✓		300 25			300 25
6	A. S. Brown	Inv. 7/1 - net	30			200 —		200 —
	Sales		✓		392 50			392 50
				5,000 —	1,466 90	325 —	2 50	6,789 40
	Summary			5,000 —	1,466 90	325 —	2 50	6,789 40
	Total		✓					6,789 40
	Less: Balance July 1 above		✓					5,000 —
	Cash, Dr.		4					1,789 40
	Sales Discount, Dr.		70					2 50
July 18	Balance*		✓	4,802 31				4,802 31

* This balance is taken from the credit side of the cash record appearing on page 181.

Form 15. Columnar Cash Book—Debit Side

CASH

CR.

DATE		ACCOUNT CLASSIFICATION	EXPLANATION	L.F.	SUNDRY	EXPENSE	ACCOUNTS PAYABLE	PURCHASE DISCOUNT	NET CASH
19– July	1	Rent	Store 7/1—8/1	19		75 –			75 –
		Furniture & Fixtures	A.B. Jones Furniture Co.	1	560 –				560 –
	2	Purchases	A. Bontell	✓	131 50				131 50
	3	License	City license fee 7/1—12/31	18		25 –			25 –
		C.D. Robbins	Inv. 6/28 at 2/10	40			525 60	10 51	515 09
	5	Office Expense	Stationery & postage	17		10 –			10 –
		V.Z. Snyder	Inv. 7/1—net	45			615 50		615 50
	6	Salaries	For the week 7/1—7/6	20		40 –			40 –
		A. Conners	Personal use	10	15 –				15 –
					706 50	150	1,141 10	10 51	1,487 09
		Balance			4,802 31				4,802 31
		Summary			5508 81	150 –	1,141 10	10 51	6,789 40
		Cash, Cr.		4					1,987 09
		Purchase Discount, Cr.		21					10 51

Form 16. Columnar Cash Book—Credit Side

Since all net cash appears in Net Cash column on either side of the cash book, the cash balance is found by taking the difference between these two columns. The two sides must be ruled up and closed on corresponding lines and as of the same date.

CHAPTER 15

THE GENERAL JOURNAL

Matter Left for Record in the Journal.—By the use of a cash receipts, a cash disbursements, a purchase, and a sales journal, four principal classes of transactions are taken out of the single journal and entered in separate books of record. If transactions of any other class are numerous enough to justify the use of a separate book of record, such a record should be set up. Although the number of subsidiary journals, each recording one kind of transaction, may become very large, nevertheless in practically all cases it is necessary to retain the general journal (often referred to simply as "the journal"), in order to take care of such miscellaneous items as are not recorded in any of the special journals.

The standard form of journal was illustrated in Chapter 12, where it was stated that a journal must provide space for date of entry, account classification, ledger folio index, debit and credit money columns, and explanation. As an explanation of the form, method of use, proper observance of margins, etc., was made there, it need not be repeated here.

Kinds of Transactions Recorded in the Journal.—When the number of subsidiary journals used is limited to the cash receipts, cash disbursements, purchase, and sales journals, as is frequently the case, all items not affecting these four books should be entered in "the journal"; i. e., transactions involving notes receivable and notes payable; adjustments with customers and creditors resulting from return of goods or claims and allowances thereon; and all formal opening, adjusting, and closing entries. Furthermore, there is usually a number of other transactions, which because of their special and unusual nature cannot be grouped with the items of the special journals and must therefore be entered in the general journal. In this general journal, therefore, are recorded all "general," miscellaneous, and sundry

items for which no special journals have been provided. It is thus seen that there is no uniformity of content of the general journal, its content in a given instance depending on the system of special journals in use.

Journal Explanations.—When these various classes of transactions are entered in the journal, a very complete explanation should be given the entry. In fact, all entries covering settlements and adjustments with outsiders and within the business itself are of primary importance and the explanation should be so carefully worded as to make the intent of the entry plain and intelligible.

Closing and Posting the Journal.—No particular formality attaches to the closing and posting of the ordinary standard form of journal. There is no summary entry, no totaling, and there are no rulings to be made. Ordinary care must be exercised to see that the debits and credits are correctly posted. Since the entry in the journal is given in its complete form and no debits or credits are suppressed, as is the case in the special journals, posting is routine in nature.

The Analytic Journal with Divided Columns.—One form of the journal has its debit and credit columns separated, the debit money column appearing at the extreme left of the page, followed in order across the page by columns for date, account classification, ledger folio, and credit money amount. This kind of journal is called a divided-or split-column journal and is ordinarily used to collect the totals to be posted to controlling accounts and thus to secure control over subsidiary ledgers. This matter will be fully discussed in later chapters. When the journal is so used, it is provided with additional debit and credit analysis columns on each side according to the subsidiary ledgers employed. A divided-column journal with three debit and three credit columns is shown in Form 17. There is always a general money column on each side, the other columns depending on the kind of analysis required by the business.

In the illustration referred to, an Accounts Receivable and an Accounts Payable column are provided. It is obvious that the

	Accounts Payable	General	Date 19—		Account Classification	Led. Fol.	General	Accounts Receivable	
		510 70	July	25	Notes Receivable	5			
					S. J. White	42		510 70	
					Note at 90 days 6%				
					in payment of				
					invoice 6/10				

Form 17. Divided-Column Journal

Accounts Receivable column should usually appear on the credit side and the Accounts Payable column on the debit side; although in some cases provision is also made for an Accounts Receivable column on the debit and an Accounts Payable column on the credit side. The account of S. J. White, a customer, which is paid by his note, should be credited for the amount of $510.20 and consequently the item is extended to the Accounts Receivable column.

Sometimes, many analytic columns are used in the journal, the better to classify the items recorded there and save labor in posting. With regard to this matter, however, it may be said that if the number of transactions of a particular kind is sufficiently large to justify their segregation in a separate column, this in itself would be ample justification for the use of a separate journal to record these items. Whenever the analysis of recurring transactions in the general journal is facilitated by the use of separate columns, the advisability of opening a new journal for the record of such items as appear in the general journal most frequently should be considered.

Illustrations—Opening Entries.—Illustration will be given of a few typical transactions requiring journal entry. The standard two-column journal will be used.

For the purpose of illustrating opening entries, assume the following data:

On September 30, 19—, Jack Gibson started in business, with the following assets and liabilities: Cash $3,500; Notes Receivable $800; Merchandise $4,000; Furniture and Fixtures $450; Accounts Receivable $2,100; Accounts Payable $1,500; and Notes Payable $1,200.

An analysis of this transaction shows that no part of it belongs to either the purchase or sales journals. The part relating to cash is entered in the cash receipts journal. However, in order to show the complete investment in one place, the entire transaction, including the cash part, is entered in the journal and posted from there, with the exception of the cash item. The reason for this exception is that the cash investment is also entered in the cash book and will find its way to the ledger Cash account through the total cash debits at the end of the period.

JOURNAL

19– Sept.	30	Jack Gibson opened up a general merchandise business at 375 Decatur Street, Ansonia, Conn., investing assets and assuming liabilities as shown by the following entry:					
		Cash	✓	3,500	—		
		Notes Receivable	2	800	—		
		Accounts Receivable	3	2,100	—		
		Merchandise Inventory	4	4,000	—		
		Furniture and Fixtures	6	450	—		
		Notes Payable	8			1,200	—
		Accounts Payable	8			1,500	—
		Jack Gibson, Capital	10			8,150	—

CASH

DR.

19– Sept.	30	Jack Gibson, Capital	Cash investment posted from Jr.	✓	3,500	—	

Form 18. Opening Entries on Books

Because of this, the cash item in the *journal* should be checked and not posted to the Cash account in the ledger.

Likewise, the investment item in the *cash book,* showing a credit of $3,500 to Jack Gibson, Capital account, should be checked and not posted to the credit of his account in the ledger because this item forms a part of the total investment of $8,150 posted to his credit from the journal entry.

If the student has difficulty in determining the debits and credits of entries of this kind, it may be helpful first to set up the data informally on a sheet of paper in the form of a balance sheet. Using this as a *guide,* he should then make his journal entry, debiting the asset items and crediting the liability and net worth items.

The above entries bring the transaction completely on the

books of original entry and show the ledger folios to which the various items are posted. Notice the check in the L. F. column in the journal opposite "Cash" and in the cash book opposite "Jack Gibson, Capital," which is inserted to prevent posting the same item twice.

For opening entries full explanation and details, where necessary, should be given in the journal, covering lease agreements and contracts entered into when commencing business, and other similar data. It should be noted that with *opening* entries it is customary for the explanation to precede the formal showing of debits and credits, rather than to follow it as in the case of all other journal entries.

Adjusting and Closing Entries.—Other typical entries to be illustrated are those made at the close of a fiscal period: (1) to adjust the books in accordance with certain data that were not obtainable before; (2) to transfer all temporary proprietorship accounts to the summary account, Profit and Loss; and (3) to transfer the net profit, i.e., the balance of the Profit and Loss account, to the proprietor's personal account, and the balance of this latter account to the proprietor's capital account.

The *debits* and *credits* of the entries necessary to effect the record of the data and transfers mentioned, should be determined as in the operations with ledger accounts previously shown, i.e., before setting up formal journal entries of this kind, the student should visualize their effect on the ledger accounts after these contemplated journal entries shall have been posted, to see that the results desired will be accomplished by them.

The following data relate to Jack Gibson's business and are given to illustrate the three classes of entries mentioned above:

During the year, sales amounted to $33,000; purchases to $25,000; selling expenses to $3,500; and general administrative expenses to $2,025. It is estimated that of outstanding accounts $350 are uncollectible; that furniture and fixtures have depreciated in value $45. Merchandise inventory shows $5,000 on hand. Gibson drew $1,000 during the year.

The first thing necessary is to make the adjustments on account of depreciation, bad debts estimate, and present inventory. These adjustment entries are made in the journal as follows:

19—				
Sept. 30	Cost of Goods Sold	15	4,000.00	
	Merchandise Inventory	4		4,000.00
	To transfer the goods on hand at the beginning of the year to Cost of Goods Sold.			
	Cost of Goods Sold	15	25,000.00	
	Purchases	16		25,000.00
	To transfer purchases to Cost of Goods Sold account for purposes of summary.			
	Merchandise Inventory	4	5,000.00	
	Cost of Goods Sold	15		5,000.00
	To transfer the inventory of merchandise now on hand to Merchandise Inventory account.			
	Bad Debts	21	350.00	
	Reserve for Doubtful Accounts	3		350.00
	To bring on the books the expense due to estimated loss from uncollectible accounts.			
	Depreciation	20	45.00	
	Depreciation Reserve Furniture and Fixtures	6		45.00
	To bring on the books the expense due to estimated depreciation and to effect the proper valuation of furniture and fixtures.			

The first journal entry, when posted, will transfer to the Cost of Goods Sold account the goods on hand at the beginning of the year so that they can be added to the purchases made during the year. In this connection it will be remembered that the sum of these two items, old inventory plus purchases during the year constitutes the primary factor of "cost of goods to be accounted for." The second entry transfers the purchases for the period to the Cost of Goods Sold account where, after combination with the opening inventory, they will be separated into goods still on hand and goods sold. The third entry shows the asset, Mer-

chandise now on hand, and, by its credit to Cost of Goods Sold, effects a subtraction from "goods to be accounted for," so that the balance of Cost of Goods Sold account, $24,000, shows the *cost of goods sold.*

The fourth and fifth entries, when posted, will bring on the books valuation accounts for accounts receivable and furniture and fixtures, and will set up the expense accounts, Bad Debts and Depreciation.

The books are now adjusted and ready for summarization by means of the Profit and Loss account. The following journal entries, transferring all temporary proprietorship items to the Profit and Loss account, will effect the closing operation:

19—				
Sept. 30	Sales	15	33,000.00	
	Profit and Loss	14		33,000.00
	Profit and Loss	14	24,000.00	
	Cost of Goods Sold	15		24,000.00
	Profit and Loss	14	5,920.00	
	Selling Expense	18		3,500.00
	General Administrative Expense	19		2,025.00
	Bad Debts	21		350.00
	Depreciation	20		45.00
	To close.			
	Profit and Loss	14	3,080.00	
	Jack Gibson, Personal	11		3,080.00
	To transfer net profit for the year.			
	Jack Gibson, Personal	11	2,080.00	
	Jack Gibson, Capital	10		2,080.00
	To transfer the portion of the year's net gain left in the business.			

The first entry transfers the sales to the credit of Profit and Loss. The second entry charges the Profit and Loss account with the cost of goods sold and so brings into Profit and Loss the gross profit on sales. The third entry transfers to Profit and Loss the expenses for the year. When posting has been completed up to this point, the balance of the Profit and Loss account shows a net profit of $3,080, which, belonging to the proprietor, is transferred to the credit of his personal account, as shown by the entry. He has drawn against prospective profits to the extent of $1,000, leaving $2,080 of profit remaining in the

business as an addition to his permanent investment. Hence, this balance is transferred to Gibson's capital account by the fifth entry.

Objection to the Direct Ledger Method of Adjusting and Closing the Books.—These adjustment and closing transactions are sometimes recorded directly in the ledger without first entering them in the journal. Usually this is not satisfactory because it does not show in one place a complete record of all the adjustment and closing summaries necessary at the close of a fiscal period. These summaries are matters of great importance to the business and entry of them in the journal should always be made so that full and complete explanations can be given. The journal record is just as complete as the ledger in that every transaction of the business should be recorded in it. Until a transaction has been entered in the journal, no entry of it should ever be made in the ledger which is a book of *secondary* entry always.

The more complex entries often needed to adjust and close the books of a business where numerous income and expense accounts are kept, follow the same general principles as those discussed above. Adjusting and closing entries are given fuller treatment in Chapters 19 and 20.

The two illustrations given above cover certain types of journal entries which are of a more difficult character than the customary purchase, sales, and cash entries. A keen analysis is often required to formulate the debits and credits of these entries, and the explanatory matter should be worded with sufficient care to render them always intelligible even when referred to at later times.

Entries Affecting Several Journals.—Transactions sometimes require entry in two or more journals. A basic principle of bookkeeping is that there should be no duplication of entry in the various journals. A transaction that can be completely entered in one journal should not be entered in any other journal. The one exception to this principle is made in the case of an investment transaction, as explained on page 186. Sometimes, however, there may be a conflict of places of entry, as in the case

of cash purchases and sales, already explained, where entry is made in both journals in order to allow each journal to perform its proper function. Two examples will illustrate the proper method of handling other kinds of transactions for the record of which there is conflict of place of entry.

PROBLEM 1. Assume that a customer, James Robbins, buys $1,000 worth of goods, paying $300 cash, giving a note for $500 and leaving the balance on open account.

The following entries should be made:

(a)	James Robbins	1,000.00	
	Sales		1,000.00
(b)	Cash	300.00	
	James Robbins................		300.00
(c)	Notes Receivable...................	500.00	
	James Robbins................		500.00

It will be noted that three journals are involved. Entry (a) is recorded in the sales journal; entry (b) in the cash receipts journal; and entry (c) in the general journal. The net effect of the three entries is:

James Robbins.........................	200.00	
Cash	300.00	
Notes Receivable........................	500.00	
Sales		1,000.00

Because special journals are used, however, the transaction must be split up as indicated above.

PROBLEM 2. Assume that the business purchases from the Investment Trust Co. a building site valued at $5,000, paying for it $2,000 cash and a note for the balance supported by a mortgage.

Two methods are sometimes used to record this transaction, the second of which, however, is much the better.

FIRST METHOD:

(a)	Land	2,000.00	
	Cash		2,000.00
(b)	Land	3,000.00	
	Mortgage Notes Payable......		3,000.00

Entry (a) is made in the cash disbursements journal, and entry (b) in the general journal. This method of entry requires the

splitting of the land value into two parts and breaks up what is really a unit transaction by recording it in two places. Because of this, the general journal portion of the entry should be followed by a very full explanation of the *entire* transaction, in which reference to the partial cash payment should be made. In the cash disbursements journal the only explanation needed will be a reference to the general journal entry.

Second Method. To bring about a complete record of the land item in one place, the following method is often used:

(a)	Land	5,000.00	
	Investment Trust Co..........		5,000.00
(b)	Investment Trust Co................	2,000.00	
	Cash		2,000.00
(c)	Investment Trust Co................	3,000.00	
	Mortgage Notes Payable.......		3,000.00

Entry (a) in the general journal sets up an account with the vendor, the Investment Trust Co. Entry (b) in the cash disbursements journal and entry (c) in the general journal show the cancellation of the liability to the vendor through the payment of cash in the one case and the giving of a mortgage in the other. The net effect of the entries is:

Land	5,000.00	
Cash		2,000.00
Mortgage Notes Payable...........		3,000.00

It will be noted that this method sets up a formal account with the vendor—a desirable thing—but that it requires one more entry than the first method.

The other entries recorded in the journal ought not to give the student any particular difficulty.

The Journal and Ledger Records Differentiated—Posting.—When a correct and complete record of business transactions has been made in the various journals, practically all the current information needed by the business has been secured. However, because this information is recorded in chronological order, it is not available for use. It requires sorting, grouping, and indexing. To meet this requirement, the original chronological record must be transferred to another type of record which provides for

the desired grouping. The separation of the general journal into journals for different classes of transactions such as sales, purchases, and cash, results in making certain kinds of information somewhat more available, but more than this is required for business management. The original entries in the journals must be grouped and summarized under proper account titles, so that the total results for the period may be had under review at one time. As previously explained, the book containing these account titles is called the ledger, and the transfer of the various journal entries to the ledger is called posting.

Time of Posting.—Where special journals are used, it is not customary to post all entries at the same time. The entries affecting personal accounts, i. e., those of customers and creditors, should be posted *daily*. Inquiries from customers as to their balances are received every day, and in order that this information may be given promptly and correctly, customers ledger accounts should be kept up to date in every respect. This is a matter of great importance because, if the information desired by the customer is not given promptly, or if an error is made in giving it, thus calling for correction at a later date, the customer's goodwill may be lost and his trade transferred to others.

All other accounts may have their postings made periodically —once a week or once a month—the frequency depending upon the need of the business for the information furnished by the accounts. The flow of cash—always of importance—is shown daily by the cash book record; the volume of sales each day can be had from the sales journal; but information as to expenses can usually be had only from the ledger after completing the weekly or monthly postings.

Methods of Posting.—Realizing that errors in posting are easily made and that when made they may cause great confusion, it is important for the bookkeeper to know what kinds of errors occur most frequently and to study means of avoiding them. Certain methods of posting have been found to produce a minimum of error. Some points in connection therewith will be considered here.

One of the chief errors in posting is to make entry on the

wrong side of the account, i. e., to post a debit as a credit, or vice versa. The use of special journals has done away with a large part of errors of this kind, yet it is advisable to keep the following points constantly in mind when posting:

1. The sales journal is a "charge" journal, i. e., the individual items represent debits and must therefore be posted to the debit side of the proper ledger accounts. The sales *summaries,* however, are credits and must be posted as such.

2. The purchase journal is a "credit" record and all postings, except summaries, are made to the credit side of the respective accounts.

3. In the cash receipts journal, each individual item represents a credit, and each individual item in the cash disbursements journal represents a debit. Hence, postings of the individual items on the debit side of the cash book must be made to the credit side of the ledger account, and postings of items on the credit side of the cash book must be made to the debit side of the ledger accounts. The posting of the summary entries of the cash book follows the debit and credit designation made at the time of summarization. The principles here involved were fully discussed in Chapter 14.

4. In the journal, the debits and credits of each entry are fully expressed, i.e., neither element is suppressed. In posting from this record, it is best to transfer all the debits consecutively and then all the credits. The possibility of posting a debit item as a credit is thereby greatly reduced.

Cross-Indexing the Entries.—As previously explained, an essential part of posting, in addition to recording the date and the amount, is to cross-index every entry. The index in the ledger consists of the first letter of the book of original entry followed by the page number, and the index in the book of original entry shows the number of the ledger page to which the item is posted. Usually, the ledger folio is entered in the book of original entry immediately after each item is posted. When this is done, the absence of a reference number in the journal indicates that the item has been omitted in posting. This check is frequently helpful in tracing errors. Some bookkeepers, however, before

doing any posting, go through the book of original entry and from the account index of the ledger enter in the ledger folio column of that particular journal the ledger page numbers. By this method, much time is saved in finding the account in the ledger, but a *check mark* should be placed after each item as soon as it is posted, to indicate the fact. Then the absence of the *check mark* indicates an unposted item.

The Slip or Reverse Posting System.—As indicated before, it is better to post carefully and accurately in the first place than to hunt for errors afterwards. A method of proving daily postings known as the slip or reverse posting system is used with success in many places. Formal slips of any convenient width and length are provided, one for the debit and one for the credit of each book from which postings are made. The debit slips may be easily distinguished from the credit slips by the use of different colors. The slips are ruled only with money columns and each slip bears the title of its journal. *Reverse* posting is made on the slip from the items posted to the ledger. Thus, when posting the debits from the general journal, the general journal debit slip is carried conveniently on the right of the ledger and entry of each debit posting to the ledger is made *from the ledger* to the slip. When all journal debit postings have been made, the reverse posting slip is totaled and must agree with the total of the journal debit column for the items posted. Similarly, the journal credits are posted, reverse posted, and proved. The debit postings must equal the credit postings and thus proof is secured of the equilibrium of the ledger. Each journal is posted, reverse posted, and proved in a similar way. The bookkeeper is, in this way, sure of the correctness of his work day by day. Oftentimes, monthly recapitulation of these reverse posting slips is made and preserved as part of the business records.

Explanatory Matter in the Ledger.—In posting personal accounts, it is customary to show the terms of credit in the explanation column of the account. In this way the face of the account shows whether the customer pays promptly or not, and affords a basis for his credit rating.

Notes Payable and Notes Receivable accounts in the ledger should show essential data, such as due date, interest rate, etc. However, when a separate note or bill book is used, these data are given there and may be omitted from the account in the ledger.

With all other accounts, except sometimes the Profit and Loss account, little or no explanatory matter is carried. However, when a posting is made that is at all unusual, it is well to enter explanatory matter in the ledger. From the business man's point of view, the ledger is the most important book of account, and if its record can be so made as to require a minimum of reference to original books, it serves its purpose so much the better. Where possible, i. e., where the number of income and expense accounts is not too great, the Profit and Loss account should carry the names of the accounts closed into it. In fact, all transfers, whether made on the face of the ledger or by journal entry, should carry the account title and the ledger folio to which and from which the item is transferred. It is a fundamental principle that every entry must be indexed in such a way as to render reference to it easy at any time.

CHAPTER 16

BUSINESS PAPERS, THE FIRST RECORD OF TRANSACTIONS

The Memorandum Record of Business Transactions.—It has been seen that the formal book record of business transactions comprises first a journal and then a ledger record made by posting from the journal. Both these records are formal and entry in them requires the services of a trained technician. In every business the various kinds of transactions entered into are handled by persons—clerks and others—trained for each type of work or service to be done. Thus, salespersons handle the selling of goods; purchasing agents and assistants buy stock-in-trade, supplies, etc.; the treasurer and his assistants handle the finances—cash, notes, bank relationships, credit, collections, etc.—the personnel manager and his staff handle the employee relations and may make up the payroll; and other groups of executives and their staffs handle other types of work.

It is apparent that the technical bookkeeping staff cannot be in intimate personal contact with all business transactions entered into and concluded. Since, however, it is necessary for them to make a formal record of all such transactions, methods and means must be devised whereby a report will be made of these transactions and sent to the bookkeeping department. These reports are variously termed business papers, memoranda, or vouchers. They constitute the first record of business transactions. However, such record is an informal one not formulated in technical bookkeeping terms. It is merely a memorandum record containing all the necessary data from which the *formal* record may be made in the appropriate journal. The more important of these papers will now be described and explained. For this purpose they will be classified under the following heads:

1. Those relating to the purchase of stock-in-trade.
2. Those relating to the sale of stock-in-trade.
3. Those relating to cash receipts.
4. Those relating to cash expenditures.
5. Those relating to banking relationships.
6. Those relating to negotiable instruments.

Business Papers for Purchases.—In a large organization, procedure covering the buying of goods usually comprises several steps. There are frequently one or more buying or purchasing departments which handle the actual buying of the goods. This department must be notified of the goods needed by the various members of the merchandise departments. This may be done by means of a requisition form requesting the purchasing department to buy the quantities and kinds of goods listed. Competitive prices may be asked for, after which the order is placed in the most favorable market. When the goods are received, a vendor's bill or invoice accompanies them, which, if found correct, is then paid. While procedures vary in different organizations, particularly as among retail, jobbing or wholesale, and manufacturing establishments, that just described is fairly typical. It is seen to involve four separate steps:

1. The initiating of the purchase by requisition.
2. The placing of the order.
3. The receipt of goods and invoice.
4. The payment of the bill.

While business papers such as the requisition, purchase order, purchase invoice, and check, are used for all four steps, only those covering steps 3 and 4 are usually recorded formally. These steps will be explained here and step 4 will be referred to again in connection with cash disbursements.

In some businesses, another step is involved where goods bought are placed in a warehouse. This is usually evidenced by a warehouse receipt issued to the owner, who is thus able to transfer title to the goods stored simply by transferring by indorsement the warehouse receipt to the new owner.

The Goods Invoice.—When a merchant sells goods to a customer, he writes out an itemized "bill" which is sent along with

the goods. This bill, loosely called an "invoice," is from the seller's viewpoint more accurately described as a sales invoice, and from the customer's or buyer's viewpoint as a purchase invoice. It is an itemized statement of goods bought or sold, and should show the names of vendor and vendee, the address of the vendor and the date of sale, the quantities, kinds, and prices of the goods, the terms of sale, and additional information as to method of shipment, etc. A typical form, known as the simplified invoice form, is shown on page 201.

Handling the Purchase Invoice.—When goods are bought, the purchase invoice should be verified or audited. The method of audit depends upon the organization of the business. In a small business, if the invoice is received before arrival of the goods, it is usually held till their arrival and then checked against them as to quantities, quality, and price. The extensions and total are verified and entry made in the purchase journal, using the audited invoice as a basis. The invoice should then be placed in a temporary file till paid, after which it is usually filed under the vendor's name for future reference. The check in payment of the invoice, when returned canceled by the bank, is frequently attached to the invoice for which it was issued as evidence of its settlement. At any rate, the paid invoice should bear on its face a notation to show the payment.

In a large business where the clerical work is divided among departments, several copies of the original purchase order sent to the vendor are usually made out—one copy, for instance, for the purchasing department, one for the receiving room, one for the auditing department and so on. The procedure of auditing is then more complex. The copy furnished the receiving room is usually left blank as to quantities, and sometimes the description of the goods ordered is also omitted, as this requires a more careful count and checking by the receiving clerks. When the goods are received, quantities and kinds are filled in by the receiving department, and the copy is sent to the auditing department where it is checked against the auditor's copy of the original order and the purchase invoice from the vendor. If found correct as to quantity, kinds of goods, extensions, and additions, the invoice

SIMPLIFIED INVOICE

[YOUR Name, Address and Trademark Go Here]

CUSTOMER'S ORDER NO. & DATE	784 9/5/19--	REFER TO INVOICE NO.	40933
REQUISITION NO.	28,453	INVOICE DATE	10/8/19--
CONTRACT NO.	12,580	VENDOR'S NOS.	AC48786

SOLD TO
John Duncan
894 Pacific Street
Portland, Ore.

SHIPPED TO AND DESTINATION	Same. Portland, Ore.		
DATE SHIPPED	10/8/19-- FROM N.Y.City	PREPAID OR COLLECT?	Collect
CAR INITIALS AND NO.	NP897,643 F. O. B.		
HOW SHIPPED AND ROUTE	Fast Frt. N.Y.C.		
TERMS	2/30, n/60		

FOR CUSTOMER'S USE ONLY

REGISTER NO. 13279	VOUCHER NO. 4281
F. O. B. CHECKED R.T.S.	
TERMS APPROVED CEW	PRICE APPROVED RK
CALCULATIONS CHECKED BWC	
TRANSPORTATION 238576 FREIGHT BILL NO.	$38.72 AMOUNT
MATERIAL RECEIVED 10/24/19-- DATE	JAD SIGNATURE Rec. Cl. TITLE
SATISFACTORY AND APPROVED	
ADJUSTMENTS	
ACCOUNTING DISTRIBUTION Shoes	
AUDITED CCH	FINAL APPROVAL MCC

QUANTITY				DESCRIPTION	UNIT PRICE	AMOUNT
Case	1	24	pr.	Cf Blu C1784H	4.80	115.20
"	1	24	"	PG Oxfords A-E4390L	5.25	126.00
"	2	36	"	W. St Sand. AA-C07862K	3.85	138.60
				Total		379.80

Form 19. Simplified Invoice

In case of multiple billing, a column should be provided at left for order numbers. *To conform to standard*: "Customer's Use" block must be exactly as shown. Designations must all be shown. Sequence and position of designations must be as shown. Sizes: 8½" from side to side; 7", 11", 14" from top to bottom.

Optional for user's convenience: Size and arrangement of space for vendor's name, address, trademark, etc., also spacing both horizontal and vertical, to left of "Customer's Use" block, may be changed as desired. "Shipped to and Destination" may be arranged for enclosed block for window envelope. "Description" column may be subdivided as desired. Invoices to retailers should provide a column ⅞" wide to the right of the "Amount" column and headed "For Retailer's Use."

becomes the basis for entry in the purchase record—journal or voucher register as the case may be—after which it follows the customary routine as to filing. The invoice remains in a temporary file as long as it is unpaid. Upon payment, it is placed in a permanent file, either under the name of the vendor, by invoice number, or according to whatever system may be in use.

Business Papers for Sales.—The procedure covering the sale of goods may be very simple or quite complex in accordance with the size and type of organization. In small retail stores,

oftentimes nothing more than a cash register record is made of individual sales. In other concerns, a sale ticket or invoice is required as the evidence of the sale. In a large organization, the following steps may comprise the full procedure:

1. Receipt of the customer's order.
2. Filling the order.
3. Delivery of the goods.
4. Sending the bill or invoice.
5. Making adjustments with customer, when necessary.
6. Receipt of payment.

The Customer's Order.—The salesman may take the customer's order, securing his signature to the order which thus constitutes a formal contract between vendor and customer; or the customer may send in an order by mail or otherwise over his signature. All large jobbers and manufacturers provide sales order blanks containing the provisions of their standard sales contract and, of course, space for dating, customer's name, address, shipping instructions, and details of goods ordered. Because of the practice of canceling orders by the customer and acceptance of the cancellation by the vendor, it is not customary to make a formal entry of the sales order in the books of account until the order has been filled and delivered. Of course, careful track is kept of all orders, even to the extent of giving them a serial number and entering them in a memorandum book, oftentimes termed a sales or order register.

Filling the Order.—The filling of the order may necessitate the preparation of departmental sub-orders. This is usually the case when the order calls for goods to be furnished by several different departments. The order department will break down the customer's order in accordance with the departments which will supply the goods. These sub-orders sent to the departments will furnish them with the information necessary for the filling of the order. The goods furnished by each department will then be routed to the shipping room, where, accompanied by copies of the sub-order, they will be assembled, checked, and packed for shipment. It is thus seen that the order and the sub-order are business papers very necessary in the routine of order filling,

but not serving as a basis for formal entry on the books of account.

In the event that any of the goods ordered are out of stock and cannot be supplied in time for shipment with the order, it is customary to issue what is known as a back-order memo, i.e., a memo for filling the order at a later date. This is sent to the billing or invoice clerk who enters the item on the customer's bill with a notation to the effect that such goods are not in stock but will be sent as soon as in stock, if agreeable to the customer. The back-order memorandum is thus made to serve the same purpose as another order from the customer to be filled at a later date.

Delivery of the Goods.—The goods are now ready for delivery and may be sent to the customer by any one of several agencies, in accordance with his instructions or with the policy of the vendor, where no specific instructions are given. The truck or delivery service of the vendor or of an outside truckman may be made use of. Mail or parcel post service of the government, the railway express or freight service, or water shipment may be the method employed. While it is the more usual practice for the customer to pay the freight or delivery charge, sometimes the vendor pays it, having included it in his quoted sales price; or by agreement with the customer, the vendor may prepay it and bill the customer for it, in this way being reimbursed when the customer pays his bill.

In the case of prepaid freight to be charged to the customer, the bookkeeping entries to record the transactions involved are usually made in accordance with the following routine. When the freight bill is paid, it will be recorded in the cash disbursements journal as a charge to Out-Freight account. The charge to the customer both for the prepaid freight and for the goods bought will be made in the sales journal. This will introduce into the sales journal an item which is not a sale of merchandise and which should not, therefore, be credited to Merchandise Sales account. Where many prepaid freight transactions are to be recorded, it is best to provide in the sales journal an additional column headed Out-Freight. The total charge to the cus-

tomer will be entered in the Total column, from which the portion covering the charge for the goods sold will be extended into the Merchandise Sales column, while the charge for prepaid freight will be entered in the Out-Freight column. At the time of summarizing the sales journal, two credits will be set up, the one to Merchandise Sales account for the total of its column, the other to Out-Freight account for the total of its column. The Out-Freight account in the ledger thus receives its debits from the cash disbursements journal and its credits from the sales journal. If all out-freight is chargeable to the customer, the Out-Freight account will ultimately balance. In the event that there is a debit balance in the account, it represents freight on customers' orders, the cost of which is borne by the vendor.

The procedure in connection with the shipment of goods by freight will now be explained.

Shipping Goods—The Bill of Lading.—The sale—and purchase—of goods frequently involve dealings with railroads. It is not the purpose of this chapter to give an extensive system or method of handling shipments, but merely to explain the purpose of the railroad documents and their use as business papers.

A shipment of goods is evidenced always by a "bill of lading," a contract under which the railroad accepts freight for carriage, defines its liabilities as a transportation company or warehouseman, and states its duties and those of the shipper. Its standard content is prescribed by the Interstate Commerce Commission, although any additions to it not in conflict with the standard content are not forbidden. If the shipper so desires, he may have bills of lading printed to conform in size with his own files, instead of using those furnished by the railroad. There are two standard forms, the *straight* bill of lading which is not negotiable, and the *order* bill of lading which is negotiable.

The bill of lading is always made out in triplicate, the original and the two copies being identical except as to titles and signatures. The original is signed by the shipper and the railway agent, and constitutes the shipper's receipt for the goods delivered to the railroad. The second copy, called the "shipping order," is signed by the shipper only. It is his order to the railroad to ship

the goods, and is held by the railroad as evidence of its authority. The third copy or memo is an exact duplicate of the original. Like the first copy, it is signed by the shipper and the agent, and is held by the shipper as a duplicate receipt. Sometimes it is forwarded with the invoice to the customer, but otherwise should be filed by the shipper with the original bill of lading. In case of claim against the railroad for loss or damage to goods in transit, the original bill of lading is required as evidence and should, therefore, always be kept in the shipper's possession.

Freight Notice and Expense Bill.—A notice, called "freight notice," is sent by the railroad to the consignee upon arrival of the goods. A more or less formal order is given by the consignee to the teamster or drayage company to call for the freight. This order authorizes the railroad to deliver it to the teamster or drayage company. Upon its delivery, an "expense" or freight bill is sent to the consignee itemizing the freight charges due on the shipment. The freight notice and the freight bill are usually made at one impression, the heading on the one being a notice of the arrival of freight, while on the other the heading is that of an ordinary invoice or bill showing the freight charges on the designated goods. Some railroads make three copies at one impression, consisting of: (1) the freight notice, (2) the delivery receipt, and (3) the freight bill. Copy (2) is a receipt surrendered by the consignee upon delivery of the goods.

C. O. D. Shipments.—C. O. D. shipments are handled through the agency of an express company, the post-office, or a bank. Express companies accept for shipment freight which is to be paid for upon delivery, agreeing to collect and remit the amount of the invoice to the consignor less collection and remittance charges. This method of shipping sometimes gives the consignee the privilege of examination before acceptance. It is used with customers who are unknown to the shipper or with those whose credit is doubtful.

When the parcel post service is used for shipping goods C. O. D., the post-office makes the collection for the shipper. The shipper must, of course, always prepay the postage, although this may by agreement become a charge against the customer.

When a bank is made the shipper's agent to collect on delivery, a draft is drawn on the consignee and sent to the bank along with a special C. O. D. bill of lading, the *order* bill referred to above. This original C. O. D. bill together with the attached draft is sent by the bank to its correspondent located in the same city as the consignee. The correspondent bank presents the draft to the consignee for acceptance or payment, as the case may be, and thereupon delivers the special bill of lading to him. The shipper's order to the railroad provides that the goods are to be delivered only upon presentation by the consignee of this special bill of lading. In the use of the order bill of lading, it is customary for the original copy to show the goods consigned to the order of the shipper himself. This copy, indorsed by the shipper, and the attached draft are the documents used by the bank in making the collection.

The Sales Invoice.—In the case of a manufacturer or jobber where goods sold are not delivered over the counter to the customer, it is the usual practice to make out an invoice or bill on a billing machine and to send this to the customer by mail after the goods are delivered to the railway or other transportation company. This bill will be held by the customer until the goods arrive, when it will be checked against the goods actually received. Prices and extensions will be verified and, if found correct, the bill will be passed for payment. The copy of the bill retained by the vendor will provide the basis for formal entry in the sales journal, from which, or from the copy of the bill itself, the charge will be made to the customer's account. As explained in Chapter 13, in some cases, the carbon copy of the invoice is placed in a binder provided with a recapitulation sheet, thus serving as a sales journal.

Handling the Retail Sales Invoice.—Practically all systems of handling sales require that at the time of the sale some record or memo of the transaction be made. In retail establishments, the use by each salesman of a book of sales tickets with provision for duplicate or triplicate impression is very general, whether the sale be cash or charge. The cash and charge tickets are usually put up in separate books and a different color of paper is used

for each. At the close of the day, the total cash tickets are checked against the cash received from cash sales, and the total charge tickets give a controlling figure for charges to customers. The total of the cash tickets plus that of the charge tickets gives the total credit to Sales.

These sales tickets are usually entered on a daily sales sheet provided with distributive columns for analysis according to departments or kinds of commodities. A recapitulation giving the totals of each of these columns is made and posted to the ledger, while the customers ledger accounts may receive their charges direct from the sales ticket. This recapitulation really constitutes the sales journal record, as is explained in Chapter 32.

Whatever the system, the sales ticket is the original record of the transaction and therefore valuable as evidence in case of dispute. These tickets should be filed away and kept until all danger of dispute is past.

Credits and Returned Goods Invoices.—When dissatisfied customers return goods, or when the business makes them an allowance on goods sold, a credit invoice or memo is sent them and the duplicate copy of this memo retained in the office becomes the basis for entering the transaction on the books. These credit memos are always of some distinctive color, frequently red, in order to distinguish them readily from the regular invoice.

Similarly, if for any reason goods purchased prove unsatisfactory and are returned, record of their return should be kept by the shipping clerk and used as a basis for securing proper credit from the vendor. Sometimes what is known as a debit memo may be issued as notice to the vendor of the amount claimed. The vendor usually sends a returned goods invoice, which, though similar in form to the purchase invoice, constitutes on the vendor's books a credit to the purchaser instead of a charge, and on the purchaser's books provides the basis for entry in the purchase returns and allowances journal where charge is made to the creditor-vendor.

The Receipt of Customer's Payment.—The receipt of payment by the customer constitutes a cash receipt, and the routine procedure to be followed in handling it will be explained in con-

nection with the business papers evidencing cash receipts. Many customers buying goods under credit terms providing for discount if paid within a specified period, make it a practice to take advantage of all such discounts. They therefore pay their bills promptly. It should be noted in this connection that bills which include a charge for freight prepaid by the vendor are usually subject to discount only to the extent of the charge made for the merchandise. It is quite necessary, therefore, for the vendor's invoice to show the two items separately.

Because the discount credit terms frequently overlap the end of the month, many customer accounts will have unpaid balances at the month's end. To call these to the attention of the customer and ask for settlement, a collection device or memo is made use of, known as the statement of account. This will next be explained.

The Statement of Account.—When goods are sold, an invoice or bill showing terms of sale, quantities, items, prices, and

STATEMENT OF ACCOUNT

New York, N.Y.,

Mr. J. P. Norton,
1031 Blvd. F, Saratoga, Va.

In account with

D. COHEN & COMPANY
Manufacturers of Ladies' Waists and Suits

19–						
May	1	Balance	$ 325	40		
	5	Mdse. per bill rendered	1,000	—		
	14	" " " "	575	60		
	17	" " " "	121	25	$ 2,022	25
		CR.				
	4	Cash	$ 500	—		
	10	Mdse. ret'd, per credit memo	50	75		
	20	Note	1,000	—	1,550	75
		Balance due			$ 471	50

Form 20. Monthly Statement of Account

total amount of sale is sent to the customer. Periodically, frequently the last of the month, a statement is rendered each customer whose account shows a debit balance. Frequently, the date

of sending the statement is recorded in the explanation column of the ledger account—a practice which, from a credit point of view, is desirable.

The statement of account is a transcript, sometimes a summary, of the customers ledger account, i. e., it contains all charges and all credits for the period covered. If there is a balance outstanding at the beginning of the month, the current statement opens with the balance item and is followed by lists of all charges, payments, and other credits for the current period; the total credits are subtracted from the total charges and the balance constitutes the amount now due and owing. Sometimes a statement of account is made out in detail, giving a copy of the original invoices which evidence the several sales transactions. Statements of account are issued in many different forms, but Form 20 shows all the essentials.

Business Papers for Cash Receipts.—The system of paper work in connection with the receipt of cash serves three chief purposes:

1. It furnishes a basis for formal entry in the books.
2. It is so organized as to safeguard the cash, thus preventing theft and loss.
3. It serves as a basis for internal reports to executives.

In this chapter, the primary interest is in the first purpose. Some attention will be given in later chapters to the other purposes.

Cash receipts come from various sources, among which may be mentioned: (1) original investment by owner; (2) sales of merchandise for cash; (3) collection of customers' accounts; (4) notes payable and receivable discounted at bank; (5) interest, commissions, rentals, etc.—i. e., earnings of all kinds; (6) the sale of securities, fixed assets, etc. In some of these cases the cash received is evidenced by a business document or paper, in others not. The cash sales ticket, the cash register record on the tape, the customer's letter with check enclosed, the receipt issued to the payer, letter of notification from the broker or agent of amounts received from sale of assets other than merchandise—all these comprise the business papers supporting the receipt of cash.

Handling Cash Receipt Memos.—In the retail store, cash sales usually constitute the largest source of cash receipts. Where the sale is evidenced by a sales ticket, the procedure in connection therewith was explained on page 206. The total of such sales tickets checked against the count of cash provides the basis for entry in the cash receipts journal as well as in the sales journal. Similarly, where cash registers are used, the "readings" from them taken at close of each day's business—these readings usually being entered in a memo book or register—provide the basis for formal entry in the cash journal.

Cash collected from customers on account is usually received in the form of the customer's check which thus suffices for entry in the cash journal. When received in any other form by mail, the letter of transmittal will usually serve as a sufficient memo for formal entry. When cash is delivered in person by the customer, a cash memo ticket bearing customer's name and amount, a duplicate receipt blank—if a formal receipt is given the customer—or immediate entry on a cash sheet will provide the basis for formal entry; or entry on the cash sheet may itself be sufficient formal entry, where such sheet is later made to comprise a page of the cash receipts journal. Other cash receipts are usually evidenced by cash memo tickets, by memo or report from the bank, sales confirmation from the broker, or other similar means.

Business Papers for Cash Disbursements.—The paper work covering cash expenditures is very similar to that for cash receipts. Cash disbursements are made to creditors for merchandise bought, for supplies, for services of all sorts, for redemption of promissory notes, drafts, bonds, and mortgages, for securities and other assets purchased, etc. The check, the remittance slip, the receipt for money paid, the receipted invoice, the canceled promissory note returned when redeemed—all these comprise forms of business papers used under various circumstances as memos for cash disbursements.

Handling Cash Disbursement Memos.—Best modern practice makes disbursement of cash almost exclusively by check. The check itself before issuance, the check stub, the interleaf or counter foil provide the basis for entry in the cash disbursements

journal. In many cases a form of counterfoil, known as a remittance advice, serves the purpose admirably by permitting the immediate mailing of the check with a perforated detachable portion containing the remittance advice which lists the particular invoices, with discount and other deductions shown, the payment of which the check covers. From the carbon copy of check and advice the formal entry in the cash disbursements journal is made.

In a particular system or case where the check cannot be used as the basis for entry, some of the other business papers mentioned above will serve. The "imprest system" for handling petty disbursements is explained in Chapter 34.

The Bank and Its Relation to Business.—Practically all business houses at the present time take advantage of the banking facilities to be found in almost every community. A bank is sometimes defined as an institution which deals in money and credit. One of its chief functions and the one on which its main income is based, is that of acting as a place for the deposit of moneys, these deposits forming the basis for its loans and discounts. Among its other important functions and services are the collection of drafts and checks drawn on other banks; the issuance and sale of its own drafts on other banks, thereby enabling its customers to make payments to out-of-town creditors; the discount of commercial paper; the lending of money to its patrons on approved security; and the issuance of paper currency.

Opening an Account with the Bank.—Because so much of the bank's business is based on the honor and integrity of its customers, a prospective depositor is usually required to present a card of introduction signed by a customer of the bank or some one else known to it. A depositor who wishes to open a checking account is asked to file a "signature" card bearing the signatures which he will use in signing checks. As considerable expense attaches to handling depositors' accounts, some banks require that the balance of the account shall never fall below a fixed minimum. In the event that it does, a monthly service charge is made.

Business Papers Used in Dealing with the Bank.—The use of the facilities offered by the bank gives rise to the need of memos of the various transactions entered into. Most of these are too well known to require anything more than mention. The deposit ticket, pass-book, check book, credit and debit memos, and monthly statement of account are the chief of these. Where all cash received is deposited and all disbursements are by check, the record or account with the bank is virtually the same as the record contained in the cash book. Most of these business papers, except as explained above in connection with cash transactions, are memos only, serving as safeguards and not as a basis for entry in the books of account. The debit and credit memos, however, frequently serve as the basis for formal entry. Such items as deposited checks returned because of inability to collect, the crediting of sums realized from discount of customers' or own promissory notes; interest credits; collection and exchange debits; etc.—all these are usually evidenced by debit and credit memos transmitted with appropriate letters of advice.

Business Papers in Connection with Negotiable Instruments.—Frequent use is made in business of negotiable instruments of various kinds. Promissory notes, drafts, checks, and money orders are the chief kinds used. These will be explained and, in some cases, the formal book entries arising out of their use will be shown.

In most cases the negotiable instrument itself is the basis, i. e., the memorandum, for making the formal entry in the appropriate journal. The journal record of transactions involving notes will usually be made either in the general journal or in one of the note journals where such are used. The cash journals will also be involved, sometimes upon the issuance of a note—as in the case of discounting a note payable or the collection of a sight draft—and always upon the redemption of notes payable at maturity or other time. To the extent that the bank is frequently used as an agent in the presentation and collection of notes and drafts, the bank's debit or credit memo with advice may serve as the basis for formal journal entry rather than the negotiable documents themselves. Because of the values involved, all negotiable instru-

ments must be handled with great care. Hence, when such documents are released to others, either formal journal entry or memorandum record should be made in accordance with the circumstances in each case.

The distinctive feature of the negotiable instrument is that in many ways and for many purposes it takes the place of money.

From a legal standpoint, a negotiable instrument is one which gives a bona fide holder an absolute right to it, whether the preceding holder had acquired it lawfully or not. It is in this respect distinguished from other objects of value, as a horse, for example, the present possessor of which is the legal owner only if he acquired it in good faith from one who in turn had acquired it lawfully.

To be negotiable, an instrument must have the following requisites:

1. It must be in writing and signed by the maker or drawer.
2. It must contain an unconditional promise or order to pay a fixed sum of money—and the payment must be made in legal tender.
3. It must be payable on demand or at a time which is either fixed or can be determined.
4. It must be payable to bearer or to order.

The Promissory Note.—The promissory note may be defined as a negotiable instrument in which the customer formally promises to pay his debt at a fixed time in the future. The kind of claim represented by a note receivable is, legally, different from the open account claim; generally speaking, a note is considered a *better* claim than an open account. This is because the note implies a prima facie acknowledgment of the correctness of the original charge, and in event of suit relieves the holder from proving the original items of the claim.

Accordingly, when a promissory note is received from a customer, the open account claim against him ceases to exist and a different kind of claim evidenced by his promissory note is acquired. Therefore, the open account is credited to show cancellation of the original charge, and Notes Receivable is debited to show the new claim. In some businesses, it is the policy to

$500.00 Jacksonville, Fla. Sept. 9 19—

Sixty days after date I promise to pay

to the order of Henry Smith

Five Hundred and no/100 Dollars

at the First National Bank of Jacksonville, Fla.

For value received with interest at 6% per annum.

No. 35. Due Nov. 8, 19—

John Johnson

Form 21. Promissory Note

encourage customers to give notes. In such cases it is often advantageous, particularly for the credit information shown, to set up the note transactions with each customer under individual names, e. g., "John Doe, Notes Receivable." Such a title plainly indicates the nature of the items listed under it; viz., claims against John Doe, witnessed by his promissory notes. As a general rule, however, the notes received from customers are relatively small in number and are, therefore, brought together under one class title, Notes Receivable. A common form of promissory note is shown in Form 21.

The Draft.—A draft is a negotiable instrument containing a written order by one party on a second party to pay to a third

$125.75 Hoboken, N.J. Oct. 5 19—

Sixty days after sight pay to the

order of James Stanley Jackson and Company

One Hundred Twenty-five and 75/100 Dollars

Value received and charge to the account of

To George S. Perkins

No. 93. Providence, R.I.

Bert V. Robbins

Form 22. A Draft

party the amount of money named. A draft may have a form similar to that of Form 22.

It will be noticed that there are three parties to a draft—the drawer, the drawee, and the payee. The drawer is the person

who draws the draft and whose signature appears at the lower right-hand corner of the draft. The drawee is the person on whom the draft is drawn, George S. Perkins, above. He is sometimes called the payer. The payee is the person who is to receive the payment ordered, James Stanley Jackson & Co.

To understand the use of the draft as an instrument of business, suppose the following relations exist between the three parties shown above:

1. George S. Perkins bought goods from Bert V. Robbins on account for $175.
2. Robbins bought goods from James Stanley Jackson & Co. to the amount of $125.75 on account.

The problem will be discussed from the standpoint of Bert V. Robbins. From the above data it is clear that Robbins has a claim against Perkins for $175 and owes $125.75 to Jackson & Co. Instead of collecting the claim against the former and paying his debt to the latter, he writes out a draft for $125.75 on Perkins, with Jackson & Co. as payee, thereby requesting (or ordering) Perkins to pay $125.75 to Jackson & Co. This draft he sends to Jackson & Co. and they present it through their bankers to Perkins. Under ordinary circumstances, Perkins acknowledges the correctness of the draft and writes his acceptance *on the face of it,* thereby promising to pay the amount when due. Acceptances are usually worded in the following manner:

Accepted, Oct. 6, 19—
Payable at First National Bank
of Providence
GEORGE S. PERKINS

It should be said that the three-party draft is not usually made use of without the consent of the drawee previously obtained, as in the case of a bank check, which is a draft on the bank drawn by the depositor. Very often in ordinary drafts, particularly when drawn against an export of goods, the drawer makes out the draft in favor of himself and indorses it in blank, thus making it transferable to bearer.

The Accepted Draft.—When accepted, the draft becomes, to all intents and purposes, an ordinary promissory note—Perkins'

promise to pay Jackson & Co. $125.75. Until the draft is accepted by Perkins, it simply constitutes a request from Robbins to Perkins to pay the amount named and the draft as such does not bind Perkins in any way. Hence, no entry is made on the books of account of any of the three parties until acceptance. Of course, a memorandum is kept of all drafts drawn.

Illustrative Entries.—Upon acceptance by Perkins, the following entries are made:

1. On the books of Jackson & Co., the payee:

Notes Receivable	125.75	
Bert V. Robbins		125.75
Robbins' draft on G. S. Perkins, accepted by Perkins, payable December 5.		

Perkins' acceptance, in possession of Jackson & Co., constitutes a claim against Perkins, and Jackson & Co. therefore debit Notes Receivable. They credit Robbins because this draft was sent to them by Robbins in payment of Jackson's open claim against Robbins for $125.75.

2. On the books of Perkins, the drawee:

Bert V. Robbins	125.75	
Notes Payable		125.75
Accepted Robbins' draft at 60 days' sight, favor of J. S. Jackson & Co.		

This entry cancels Perkins' liability on open account to Robbins, and shows as a substitution therefor the amount of his acceptance in favor of Jackson & Co. at Robbins' request.

3. On the books of Robbins, the drawer:

James Stanley Jackson & Co.	125.75	
George S. Perkins		125.75
To record the cancellation of our liability to Jackson & Co. on open account, and to credit Perkins with his acceptance of our draft on him at 60 days' sight.		

From the point of view of Bert V. Robbins, the acceptance by Perkins means two things: (1) the cancellation of a part of Robbins' claim against Perkins, and for this reason Robbins credits Perkins with $125.75; (2) the cancellation of Robbins'

debt to Jackson & Co., hence Jackson & Co. is debited on Robbins' books for $125.75.

It is important to note here that in case Perkins fails to pay the note at maturity, Robbins becomes liable to Jackson & Co. Robbins may, therefore, be considered the first indorser of the accepted draft. The discussion of the manner of booking Robbins' liability contingent upon Perkins' failure to pay is deferred to Chapter 35.

Entries After Payment of the Draft.—Upon payment by Perkins, the following entries are made:

1. On Perkins' books, a debit to Notes Payable and a credit to Cash.
2. On Jackson & Co.'s books, a debit to Cash and a credit to Notes Receivable.

Classification of Drafts.—There are several kinds of drafts, which may be either sight or time instruments. A draft drawn "at sight" is a request on the drawee to pay at sight, i.e., immediately upon presentation to him. The use of the sight draft in making collections is quite common. A delinquent customer is drawn on at sight and collection is attempted through the bank. The method is oftentimes effective because refusal to pay may reflect on the drawee's credit with his own bank. Usually no formal book entry is made of such drafts until paid. A draft drawn, say, "at 60 days' sight" is a request to pay 60 days after presentation. Hence, the dating of the acceptance of such a draft is of prime importance. Such a draft is, of course, a time draft.

A draft drawn "60 days after *date*" is called a date draft and is payable 60 days from the date of the instrument—not, as in the first case, 60 days after presentation or acceptance. It also is a time draft. It is not necessary, although customary, to present time drafts for acceptance.

Drafts may be "commercial" or "bank" according as the drawee is a merchant or a bank, respectively. B. V. Robbins' draft on Perkins shown above is a merchant's draft.

A bank draft is a request by one bank on a correspondent bank to pay a given amount of money to a named payee. A customary method of remitting money is by the purchase and

remittance of a bank draft, for the issuing of which banks usually charge a fraction of a per cent. To illustrate its use, take the following situation:

L. W. Roberts of Denver, owes Field & Co. of Chicago, $210 on account. Roberts goes to his Denver banker and buys a bank draft which may read as shown in Form 23.

FIRST NATIONAL BANK No. 37849

Denver, Colo. Aug 16, 19—

Pay to the order of L. W. Roberts $210.00

Two Hundred Ten and no/100 Dollars

To Second National Bank,
Chicago, Ill.

F. G. Moffit
Cashier

Form 23. A Bank Draft

Before sending this draft to Field & Co., Roberts indorses it in favor of Field & Co., who upon its receipt deposit it with their own bank and through it secure its collection from the Second National Bank. Roberts pays his bank for the draft $210 plus exchange.

Drafts may be foreign or domestic. They are domestic when they are drawn and payable within the same state or country; otherwise they are foreign. According to the present usage, the term "draft" is used whenever the parties concerned live within the United States, although they may reside in different states, and the term "bill of exchange" is applied to all such instruments where some of the parties live abroad.

The Trade Acceptance.—The Federal Reserve Board defines a trade acceptance as "a bill of exchange drawn by the seller on the purchaser of goods sold and accepted by such purchaser." The chief characteristic of this document as contrasted with the ordinary draft is the showing on its face of the origin of the transaction giving rise to the draft, usually by means of the following statement: "The obligation of the acceptor hereof arises out of the purchase of goods from the drawer." The following

requirements to make a trade acceptance eligible for rediscount by the federal reserve banks have been laid down by the Federal Reserve Board:

1. It must have arisen out of an actual commercial transaction, usually the purchase and sale of commodities.
2. It must have been drawn under a credit opened for the purpose of conducting or settling accounts resulting from business transactions involving the shipment or storage of goods.
3. At the time of presentation to a federal reserve bank for discount or as collateral for the loan of money, it must have a maturity of not more than three months exclusive of days of grace.

Trade acceptances are promissory notes just as are any other accepted drafts. Because they comprise a very liquid asset, it is not unusual to record them in an account, Trade Acceptances, and so distinguish them from other notes and drafts. If they are few in number, they are more usually recorded as Notes Receivable.

Checks.—A check is a draft on a depositary bank. It is an individual's order to his bank of deposit to pay a named or designated payee a certain sum of money.

The *certified check* is usually an individual's or firm's check bearing the certification of the bank's cashier that the check is good. This certification is evidenced by writing across the face of the check these or similar words:

Good
when properly indorsed
First National Bank
F. G. Moffit, Cashier

Such a certification makes the bank responsible for its payment.

A cashier's check is a bank's own check drawn on itself in favor of a third party and signed by its cashier. As a medium of exchange it ranks higher than the check of a private person, due to the superior credit and standing of the bank in the community.

Other Negotiable Instruments.—*Express* and *postal money orders* are drafts payable at sight, drawn respectively by one express agent on another and by one postmaster on another.

A warehouse receipt is a receipt from a warehouse, elevator, or other storage concern acknowledging the receipt of goods or property. Such a receipt usually contains the contract agreements entered into by the parties, covering the conditions according to which the goods are accepted for storage. The warehouse receipt is usually negotiable, or partially so, in that title to the property may pass with its transfer.

Principles Governing the Writing of Commercial Paper.—Ordinary prudence requires commercial paper to be drawn in a way that will make forgery difficult if not impossible. To this end the following two rules should be observed:

1. Leave no blank spaces, particularly where the amount is written. This is not so important when the amount is perforated, with a perforated star at each side.
2. Write the indorsement at the top margin. Unless this is done, some statement might be inserted which would change materially the effect of the signature; e. g., the payer might later write above the signature that the check is accepted in full payment of a specified bill.

Kinds of Indorsement.—An indorsement is usually for the purpose of transferring title. There are several kinds of indorsement, as follows:

1. A *blank* indorsement, which consists only of the payee's signature; this renders the instrument payable to bearer.

2. A *full* indorsement, which reads as follows: "Pay to the order of ....," giving the name of the indorsee, i. e., the person to whom the instrument is transferred, and followed by the signature of the indorser, who before his indorsement was the payee.

3. A *qualified* indorsement, which is either a blank or full indorsement with the words, "without recourse," added to it. This kind of indorsement transfers title with no liability attaching to the transferor in case of non-payment by the maker at maturity.

4. A *restrictive* indorsement, giving the name of the party to whom the check is transferred, the words, "for collection" or "for collection and deposit," being added and followed by the signature. This indorsement does not transfer title but merely appoints the person or bank named as agent for the purpose of collection.

5. A *conditional* indorsement makes the instrument payable upon the performance of some specified act, such as the delivery of property, passing of title, etc.

Other Business Papers.—It is a principle based on sound business practice that written record should be made of all business transactions whether or not they give rise to immediate entry in the bookkeeping records. In accordance with this principle, quite elaborate systems of paper work—i. e., reports, memos, etc.—are invariably employed in large organizations. The warehouse receipt, lease agreements, purchase contracts, sales agreements, contracts of all kinds, inter-department memos, time books, wage tickets, etc., are further examples of these. With many of these the bookkeeper is not concerned, except remotely, although in a small business, in his capacity as general office clerk or manager, he may be required to handle and file them. In this chapter, however, attention has been directed only to the chief business papers, memos, and documents which comprise the first record of business transactions, made by the parties to them, and which serve as a basis for formal entry in the books of account.

CHAPTER 17

LEDGER SUBDIVISION AND CONTROL

Development of Labor-Saving Devices.—The complete cycle of record making has now been explained. It comprises the following steps:

1. The entry of each transaction in memorandum form made by the person who carries out the transaction or is a party to it.
2. The routing or sending of the memorandum to the bookkeeping department.
3. The making of the formal journal record.
4. The making of the ledger record by posting from the journal.

There are only two types of formal bookkeeping records, viz., a journal and a ledger. Explanation has already been given of the way in which the use of special journals has effected marked savings in the labor of making the record. The further saving of labor by the use of special columns in journals has been explained as being for the purpose of segregating similar kinds of data and so building up totals of these for posting, instead of the posting of each individual item. The next development of labor-saving devices was effected by a subdivision of the ledger record. This will now be explained.

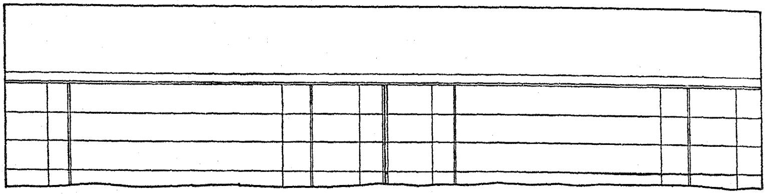
Need for Subdivision of the Ledger.—For the type of ledger previously explained, there has been in contemplation a single book in which all the accounts of the business are kept. It must be apparent that only in a small business will a single book suffice. Not only does the need for detailed information require the keeping of a large number of asset, liability, and proprietorship accounts, but the practice of buying and selling merchandise on credit makes necessary the keeping of a very great number of individual accounts with creditors and customers.

As these grow in number many ledger records or books will have to be used. This not only results in records more easily handled than one immense volume would be, but also it makes possible the use of many clerical assistants in making the record—a matter of very great importance in a large organization.

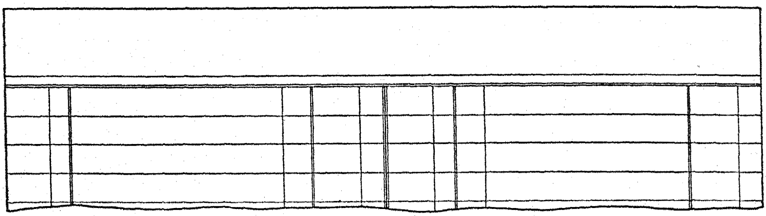
Subdivision of the Ledgers.—The basis of dividing the ledger will next be considered. The general or impersonal accounts of the business are of a more permanent character than the accounts with persons—customers and creditors. Consequently, when once it is determined under what general account titles information is desired and those accounts are set up, there is usually little need to change their titles. Personal accounts, however, are constantly changing as some customers are lost and new ones are added, and also because creditors change with purchases in new markets. Hence, when a business outgrows its small beginnings, it is customary to keep these changing accounts in separate books. The basis for the first subdivision of the ledgers, therefore, is the separation of the accounts into personal and impersonal. The accounts with customers are carried in a separate ledger called variously the sales, customers, or accounts receivable ledger, and those with creditors in a ledger called purchase, creditors, or accounts payable ledger. All other accounts are kept in the main ledger known as the general ledger. As mentioned above, one advantage of this subdivision is that several bookkeepers can work on the various ledgers at the same time.

A further subdivision of the customers ledger is frequently made on an alphabetical basis, i. e., customers ledger No. 1, containing all accounts, say, from A to G; customers ledger No. 2, those from H to M; etc. Sometimes the concern's sales territory is divided into arbitrary districts and the ledgers are subdivided to correspond with such districts. Sometimes "city" and "country" ledgers are maintained, the former containing the accounts with customers located within the city where the business is situated, and the latter the out-of-city accounts.

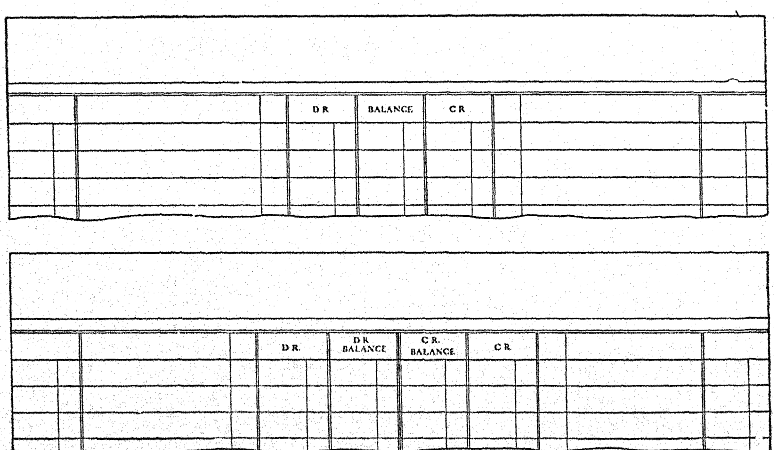
Different Types of Ledgers.—There are several kinds of ledgers, which may be classified (1) as to their rulings, and (2) as to their bindings.



Form 24. Standard Ledger—Divided Column



Form 25. Standard Ledger—Center Column



Form 26. Balance Ledger Rulings

				DR.	CR.	BALANCE

				D R	D R BALANCE				C R	C R BALANCE

Form 27. Balance Ledger Rulings

DEPOSITORS		MONDAY			TUESDAY			WEDNESDAY		
Name	Balance	Checks	Deposits	Balance	Checks	Deposits	Balance	Checks	Deposits	Balance
John Smith	500 —	200 —		300 —	150 —	1000 —	1150 —	etc.		

Form 28. Boston Ledger Sometimes Used for Depositors

1. Rulings. As to their rulings, ledgers are either standard, balance, or progressive. The standard ruling has two duplicate parts, a debit and a credit, and is usually divided in the center of the page, one money column appearing at the extreme right of each part, although sometimes the arrangement is symmetrical with both debit and credit money columns at the center, and the date columns at either side of the page. (See Forms 24 and 25.)

The balance ruling is a three- or four-column ledger with the money columns either at the center or at the right-hand margin, or at both the center and the right-hand margin. The extra columns are for the account balances. If the balance is usually either a debit or a credit, only one balance column would be necessary; where it is apt to be a debit at one time and a credit at another, a debit balance column and a credit balance column are advantageous. The balance ruling is used particularly with personal accounts where there is need for an up-to-date balance. Where this kind of ledger is used, entry of new debits or credits should always be on the next blank line as shown in the balance column, so as to allow the extension of the new balance opposite the last entry even though this should leave blank several of the preceding lines on the debit and credit sides. Typical forms of some of these are shown in Forms 26 and 27.

The Boston, progressive, or tabular ledger, as it is variously called, makes provision for a *horizontal* progress of the account as to sequence of time; the title of the account is written at the left-hand margin, and one or more lines are allowed to each account according to the degree of its activity. The account title is written once at the left margin of the master or main sheet, and is sometimes repeated at the right margin if the sheet is very wide. The page is divided into columns for each day or other divisions of the period. To effect this, short-margin insert sheets must usually be bound in to give the desired room for accommodating a whole period's record. This style of ruling was formerly much used in banks where a daily balance for each depositor's account was necessary. It is capable of adaptation to other uses, however. One form is shown, Form 28.

2. Bindings. Ledgers may be classified also as solid-bound, loose-leaf, and card, the titles being self-explanatory. One of

the great advantages of the loose-leaf and card ledgers over the solid-bound ledger is their flexilibity. They lend themselves easily to any desired grouping of the accounts; they may be numerically arranged where accounts are numbered instead of named; they may be arranged as to classes and each class made self-indexing; or a geographical grouping may be made. Another great advantage of this form of ledger is the ability to discard or file away in other binders all "dead" accounts, thus making for ease and facility in the use of the "live" ledger. Also it is possible for several clerks to work simultaneously, since the leaves or cards are removable and may be distributed among any number of clerks. There is always the danger, however, of failure to return a leaf or card, or of placing it out of regular order when returning it, or of destroying it, if it were desired fraudulently to do away with any particular account. The use of loose-leaf and card ledgers for personal accounts is pretty thoroughly established, notwithstanding the disadvantages just mentioned.

The Debit and Credit Scheme of the Subdivided Ledger.—The separation of the various journals on the basis of an analysis of transactions frees the single journal of a vast mass of detail it formerly carried. This separation, however, in no way affects the underlying debit and credit scheme of the whole system. Each journal is an integral part of the whole; every entry therein has its equal debit and credit which are in due course posted to the proper accounts, thus maintaining the equilibrium of the ledger.

The separation of the ledger into three or more special ledgers has resulted in an economy of effort and ease of use. As explained above, each of these special ledgers is still an integral part of the whole ledger and the accounts in the special ledgers must be entered in the trial balance to secure proof of equilibrium.

The customers ledger is usually the most active of the various ledgers, i.e., more postings are made in it because the majority of business transactions involve dealings of various sorts with customers, and more accounts are required to keep the records with customers. It is usually, therefore, the largest part of the whole ledger, but its accounts are all of the same kind, viz., accounts receivable. When taking a trial balance, the total of the

balances of the customers ledger accounts is usually set up under the title "Accounts Receivable," leaving the details to a supplementary list or schedule.

Advantage of a Controlling Account.—The advantage of thus condensing the trial balance is apparent and suggests the desirability of obtaining the "accounts receivable" balance independently of the customers ledger. If this is done, the bookkeeper in charge of the general ledger can not only draw up his trial balance without reference to the customers ledger, but has also the correct figure for the total of the account balances in the customers ledger. In other words, he has a figure which controls the customers ledger and which therefore furnishes him with a check on the accuracy of the ledger clerk or bookkeeper in charge of that ledger. The most convenient method of recording the accounts receivable figure is evidently by means of a formal account on the general ledger. When such an account is kept, the effect is to make it a summary account whose detail is carried in the customers ledger.

Controlling Account Necessitates Changed Idea of Ledger Equilibrium.—By having a customers controlling account (or "Accounts Receivable" as it is commonly called, though other terms are also used) in the general ledger, the customers ledger is no longer used as an integral part of the whole ledger and becomes a "subsidiary" ledger; that is, its function is reduced to that of a supporting schedule or list of detail for the summary controlling account. The equilibrium of the general ledger is now maintained by summary posting to the controlling accounts. Though the customers ledger has ceased to be a "ledger" in the proper sense of the term, it is still a vital part of the system, carrying as it does the detail of the summary controlling account. Moreover, it is linked up to the system by being provable against its summary account. Yet it should be borne in mind that its scheme of debit and credit is now an independent one and is not linked up to the debit and credit equilibrium of the general ledger; that is, the postings in the subsidiary ledger are merely memorandum entries of the detail posted in summary form to the general ledger. Thus the mathematical basis of the controlling account is simply

that the whole is exactly equal to all its parts, the balance of the summary account being equal to the total of the balances of all the customers' accounts of which it is the summary. To illustrate, if we have customers' accounts whose balances are $1,000, $2,000, $3,000, $4,000 and $5,000 respectively, then the summary account must have a balance of $15,000.

Debits to the Customers' Controlling Account.—The principle and the purpose of the controlling account having now been explained, consideration must next be given as to how best to gather the summary figures for its debits and credits. If every debit to a customer's account must be posted also to the controlling account and every credit to a customer's account must be shown as a credit in the controlling account, the work involved would be almost doubled and little would be gained by thus duplicating the postings in another ledger. Therefore, it is important to secure the figures for entry in the controlling accounts with the least effort, i.e., in the form of debit and credit summaries. To determine the sources of these debit and credit summaries, analysis must be made of the sources of the debits and credits to the customers' accounts.

Most of the debits to customers' accounts are from the sales journal. Additional debits may be from the cash disbursements journal when cash payments are made as a rebate or a refund for overpayment or some other similar transactions; still others from the general journal for adjustments of various kinds. The debits to customers, however, for cash paid them are very few in number, because such adjustments usually are not made by means of cash payments. The sales journal, as usually operated, carries a column for credit sales, whose total represents in one amount the total of all detailed debits to customers' accounts. The total of the credit sales column, therefore, controls the total debits to all customers on account of charge sales to them. In summarizing the sales journal, the summary entry should show that this total is to be posted not only to the credit side of the Sales account but also to the debit of the controlling account in the ledger. This is so because the customers ledger has ceased to be an integral part of the general ledger, the controlling account having taken its

place. Accordingly, the general ledger contains no record of either the debits or credits of the entire group of sales transactions until the end of the month, when this group must therefore be brought into the general ledger in summary form, both debit and credit.

Where the total sales in the sales journal include an analysis of sales into cash sales and credit sales, the following summary entry should be made:

Accounts Receivable
Cash
Sales

The cash debit is set up only to show the equilibrium of the summary entry and is not posted, because it is entered also in the cash book and is posted from there. This debit posting to "Accounts Receivable" in the general ledger secures in one posting a debit amount equal to all individual debit postings to the customers ledger from this source. The controlling account in the general ledger is variously termed "Sales Ledger," "Accounts Receivable," "Trade Debtors," "Customers," etc.

The two other sources of debit posting to customers' accounts are the general journal and the cash book. The analytic divided-column journal is used for controlling accounts. The debit side of the journal is provided with an Accounts Receivable analysis column in which, as explained in the previous chapter, debits to customers' accounts are entered. At posting time, the total of this Accounts Receivable column will therefore give in one figure a debit posting item to the general ledger Accounts Receivable account equal to all individual debit postings from the general journal to customers' accounts in the customers ledger.

Usually it is not necessary to provide an Accounts Receivable column on the credit side of the cash book, since debit postings from there to customers' accounts are very infrequent. Hence, no total or controlling figure for entry in the Accounts Receivable account can be obtained. Every item which is posted from this source to the debit of a customer's account must be also posted—item by item—to the debit of Accounts Receivable in the general ledger. This, of course, entails a double debit posting, but one of these debits is to a subsidiary ledger which is no longer a part

of the equilibrium scheme and, therefore, the general ledger is not thrown out of balance. Great care must be exercised to make sure that each of these items is posted both to a customer's account and also to the Accounts Receivable account. The form of entry used in the cash disbursements journal for this purpose is as follows:

Cash Disbursements Journal

Oct.	10	Accounts Receivable (Jno. B. Ferris)	2/75	25.–			25.–

In the illustration the standard four-column journal is used, the column titles being: General, Accounts Payable, Purchase Discount, and Net Cash. Note particularly the way in which the two debit account titles and the cross-indexing of the two postings are shown.

Credits to the Customers' Controlling Account.—An analysis of the credits to customers' accounts shows four main sources:

1. The cash receipts journal for payments made by customers.
2. The sales returns and allowances journal, if one is kept, for goods returned by customers and allowances made them.
3. The note journal for notes received in payment.
4. The general journal for various adjustments and also for the purpose of recording notes and returned sales and allowances where special journals are not kept for these transactions.

Accordingly, analytic columns for accounts receivable are provided in the cash receipts journal and the general journal. The totals of their columns are posted to the credit of Accounts Receivable, and the detailed amounts to the credit of the various customers' accounts. The credit postings from these sources to the customers ledger accounts and to the general ledger Accounts Receivable account are, therefore, the same so far as totals are concerned. The sales returns and allowances journal is summarized

at posting time by means of an entry similar to that in the sales journal, as follows:

Sales Returns and Allowances
        Accounts Receivable

In this case, the credit posting to the Accounts Receivable account is equal to the detailed credits to customers' accounts.

Similarly, a summary entry for the notes receivable journal secures a controlling figure for Accounts Receivable. If the notes are all received from customers to apply on their accounts, the summary entry is:

Notes Receivable
        Accounts Receivable

the amount being the total of that journal.

In this way the total of all debits and of all credits to the individual customers' accounts is represented by the summary items entered in the general ledger controlling account, Accounts Receivable. Consequently, the balance of this single account is equal to the balance of the customers ledger. For the trial balance, therefore, one account takes the place of hundreds or even thousands of customers' individual accounts. As a result of this, much time is saved and the possibility of error on the general ledger is greatly reduced.

Proving the Customers Ledger.—The use of a controlling account in the general ledger, however, does not eliminate the necessity of proving the accuracy of the customers ledger. It merely makes it possible to take a trial balance without bringing the numerous customers' accounts into it. It is just as much a part of the proof of the work to make a list of customers' accounts balances and check it against the balance of the Accounts Receivable general ledger account, as it is to prove the general ledger by means of a trial balance. If there is a discrepancy between the subsidiary ledger and its controlling account on the general ledger, that discrepancy does not necessarily prevent a trial balance of the general ledger, but it does show error in the work which must be searched out and corrected.

Accounts Payable Account.—A similar arrangement will make possible a controlling account on the general ledger for the

creditors or purchases ledger. This account is variously termed Accounts Payable, Purchase Ledger, Creditors, or Trade Creditors account. Its mechanism is the same as for Accounts Receivable. Analysis of credit postings to creditors' accounts shows the purchase journal as their main source. Other credits come through the general journal and a very few through the cash receipts journal. The summary entry for the purchase journal is:

Purchases
    Accounts Payable
    Cash

This shows a debit to the Purchases account for the total amount of the purchases, a credit to Accounts Payable for the liability to creditors, and to Cash for the amount paid on cash purchases. The cash item is not posted. The Accounts Payable column total on the credit side of the general journal, and the separate items from the cash receipts journal, furnish the other credits to the Accounts Payable account in the general ledger.

The debits come from the Accounts Payable columns in the cash disbursements journal and in the general journal, and the summaries for the notes payable and purchase returns and allowances journals.

Basic Principle as to Postings to Controlling Accounts.—In the handling of controlling accounts, the one fundamental requirement is to make sure that every entry in books of original entry which affects any account in the subsidiary ledger is reflected in the postings to the controlling account in the general ledger. This principle resolves itself into the mathematical axiom stated above that a whole is equal to all—not just some—of its parts. Only thus can a true control be established.

Making the Subsidiary Ledger Self-Balancing.—Through the use of the two controlling accounts explained above, the trial balance is relieved of a large number of accounts, and the general ledger is made independent of the subsidiary ledgers. On the other hand, the subsidiary ledgers are dependent for their proof on the controlling account balances in the general ledger. In an effort to make every ledger "self-balancing," a further refinement of the controlling account idea is frequently incorporated in each sub-

sidiary ledger. It is accomplished in the following manner: An exact duplicate of the controlling account on the general ledger is set up in the subsidiary ledger, *with this difference,* that the sides of the account are reversed so that the subsidiary ledger account has for its debits the credits of the general ledger account, and for its credits the debits of the general ledger account.

Take the Accounts Receivable controlling account for illustration. On the general ledger its balance is, of course, a debit balance representing the total outstanding accounts due from customers. Similarly, the schedule or list of customers' accounts taken from the sales ledger will represent debit balances whose total is the same as the controlling account balance. If, then, the controlling account itself is placed on the customers ledger as an additional account, the sides being reversed, the balance of this one account will be a credit equal to the total debit balance of all the other accounts in the customers ledger. Therefore, if the customers ledger is correct, its own balance will be offset exactly by the credit balance of the one additional account, and the ledger then is said to be self-balancing. There is no theory or principle of debit and credit involved in this; the device is simply introduced in order that the ledger may provide an internal proof of its correctness. The title of the balancing account on the subsidiary ledger is "Adjustment" or "Balance" and has no significance other than that mentioned. In a similar manner, any subsidiary ledger may be made self-balancing.

Advantages of the Controlling Account.—Some of these advantages have already been indicated. The following tabulation comprises these and other advantages:

1. A control is secured over the work done by clerical assistants in operating the subsidiary ledgers.

2. Greater flexibility of the ledger system is secured, it being possible for several persons to use the various ledgers at the same time.

3. The time required to take the trial balance of the general ledger is greatly shortened.

4. Errors are localized, the controlling account usually showing the ledger in which the error is located.

5. The total amounts of outstanding customers' and creditors' balances are shown by the balances of their respective control accounts.

6. The size of the general ledger and of its trial balance is reduced.

CHAPTER 18

HANDLING CONTROLLING ACCOUNTS

Operating Problems of Controlling Accounts.—Chapter 17 concerned itself with the statement and explanation of the principles on which the controlling account rests, the manner of its construction, its advantages, and with the changed application of the fundamental scheme of debit and credit under a system of records operating controlling accounts. The present chapter will be devoted to a consideration of the problems met with in the practical operation of these accounts. Some of these are: the installation of controlling accounts; the journal summaries in which cognizance must be taken of extraneous items; and accounts which are both receivable and payable.

Introduction of the Controlling Account.—Upon the installation of a new system or set of books, the controlling account feature may be incorporated from the start. The new system must provide for the separation from the general ledger, of the ledgers over which control is to be established. The method of securing controlling totals for posting to the general ledger controlling accounts was indicated in the preceding chapter.

Where it is desired to introduce controlling accounts into a system which has not formerly used them, certain adjustments must be made, i. e., the accounts to be controlled must be segregated and controlling account columns must be provided for in the books of original entry. With the transfer of these accounts to a separate ledger, together with the introduction of the controlling accounts into the general ledger, the equilibrium of that ledger is maintained. The opening entry in the newly established controlling account is, of course, the sum of the balances of the transferred accounts.

When, however, it is desired to establish the new controlling account by journal entry, that entry—in the case of the customers

ledger controlling account, for example—will appear somewhat as shown on page 242, Form 29, with suitable explanation added. All these items are to be posted to the general ledger as shown by the entry, and in addition the detailed items will be posted as *debits* to the accounts in the customers ledger. Although these customers' accounts are shown as credits in the entry, they are the same accounts which constitute the supporting detail for the debit to the controlling account, Accounts Receivable. It is this detail which is posted to the accounts in the customers ledger.

Recording Withdrawals of Stock-in-Trade.—The sales journal is fundamentally a record of only sales of stock-in-trade. Departure from this principle is, in some instances, advisable in the case of goods drawn at cost for use in the business or by the proprietor or for other purposes. The reason for this is because withdrawals of stock-in-trade, at whatever price and for whatever purpose, can be recorded more conveniently in the sales journal than elsewhere. Unless they are recorded in the sales journal, the only other place for their record is the general journal, where the detailed debit and credit for each item would have to be set up, a method requiring considerably more work. The kind of accounting system and the manner of organization of the various journals and the work in connection with their operation will, in a given instance, determine how items of this kind will be handled. In any event, the volume of such transactions, if credited to Sales account, is not usually large and would not seriously vitiate the use of the Sales account as the basis for estimating percentages of cost of goods sold, gross profit, selling expenses, etc. Moreover, as the total amount of these withdrawals is often fairly constant as between periods, their record in the sales journal is countenanced.

The Problem of the Sales Journal Summary.—When withdrawals of stock at cost price are recorded in the sales journal, a new problem arises in summarizing the sales journal when operating under a controlling account system. The sales ledger is usually limited absolutely to customers' accounts. Accounts with the proprietors, and with all other titles under which withdrawals for other purposes may be recorded, are almost invariably carried

in the general ledger. Therefore, while most of the items entered in the sales journal are posted to the customers ledger, these withdrawal items must be posted in detail to the general ledger. Thus the total of the sales journal does not represent the correct debit to accounts receivable in the general ledger. Evidently, an analysis of the content of the sales journal must be made in order to obtain the correct controlling figure.

Such analysis may be made in several ways. Where possible, three columns in addition to the departmental columns should be used. The column titles would be "Sales Ledger," "Cash," and "Sundry." The sum of these three would give the total to check against the total of the other distributive columns, but only the "Sales Ledger" column total would be posted to Accounts Receivable, and the individual items in that column would be posted to the customers' accounts in the sales ledger. The items in Sundry column would be posted to their named accounts in the general ledger. This method secures an automatic separation of the controlling account total from other items, and should usually prove satisfactory where possible of use.

If the number of these extraneous items is too small to warrant the use of a separate column, they may be recorded in the Sales Ledger column and indicated by means of an "X" or some other mark. At summary time, the sales journal must be looked over and these items picked out. Subtraction of their sum from the Sales Ledger column total would give the correct controlling account posting.

Still another method requires a correcting general journal entry at the time the sales journal entry is made. Under this method, these special items are included in the Sales Ledger column, thereby causing an overcharge to Accounts Receivable. The correcting general journal entry must, therefore, credit Accounts Receivable by the amount of the overcharge for each item. For instance, if stock has been drawn by the proprietor, the general journal entry at the time the sales journal entry is made would be:

Proprietor, Personal
        Accounts Receivable

the debit to proprietor being checked here and posted from the sales journal, or vice versa. This method, however, results in a

duplication of work. It would be preferable not to enter these items in the sales journal and to make the record only in the general journal, and so leave the Sales Ledger column total in the sales journal the correct controlling figure.

In a complicated controlling account system, where for current entry a simple bookkeeping routine must be established and all items of whatever kind be handled in the same way, the withdrawals by proprietors are recorded in accounts opened with them in the sales ledger just as with customers. At the end of the period, before closing the books, these proprietors' accounts are transferred by general journal entry to the general ledger, requiring one entry—like the one last shown above—for the drawings of the period.

Cash sales may also be handled without the use of a separate column in the sales journal. Two methods are used for this. Under the one, cash sales are included in the Accounts Receivable debit total of the sales journal, although the individual items are not posted to the subsidiary ledger, and they are also included in the Accounts Receivable credit column total of the cash receipts journal. The inflated debit in the general ledger controlling account is thus offset by an equally inflated credit, the balance, therefore, being the correct amount to control the sales ledger.

Under the other method, the postings to the general ledger controlling account are the same as in the first method. The two methods differ, however, in that under the second method an account is opened in the subsidiary ledger entitled "Cash Customers" or "Cash Sales," to the debit of which are posted in detail the cash sales items from the sales journal and to the credit of which are posted in detail the cash sales items from the cash receipts journal. The account is thus only a "wash" or clearing account. This method, however, prevents the inflated debits and credits in the controlling account.

The methods last described for handling proprietors' withdrawals and cash sales are the ones most frequently used in large businesses where simplicity of routine for current entry must be secured.

The Problem of the Purchase Journal Summary.—The practice of recording extraneous transactions in the purchase

journal brings about at summary time a situation similar to that of the sales journal, when a controlling Accounts Payable account is maintained. The purchase journal is, and should be, the place of record for purchases made for the business. If the proprietor (or other person), for his personal account and use, purchases through the business merchandise which never goes into stock, accurate accounting requires such transactions to be charged direct to the proprietor and not to the Purchases account of the business. Inasmuch as the liability is assumed by the business and the creditor's account will appear in the purchase ledger, the use of the purchase journal total for credit to the Accounts Payable Controlling account gives the correct figure. The trouble arises because this same figure cannot be used as the debit to Purchases. Subtraction of these extraneous items must be made to determine the proper amount chargeable to the Purchases account, thus necessitating an analysis at summary time.

Accounts Both Receivable and Payable.—It frequently happens that goods are sometimes bought from and sold to the same person. If the account of this creditor-debtor usually has a credit balance, it is set up in the purchase ledger. If a sale is made to this creditor-debtor and charged to his purchase ledger account, such transaction should not be included in the Accounts Receivable controlling figure from the sales journal unless an adjusting entry is made through the general journal. Such entry would affect only the controlling accounts and would be:

Accounts Payable
    Accounts Receivable

Or the item might be omitted from the sales journal controlling figure and stated separately in the summary entry for the sales journal as a charge to Accounts Payable account.

A more satisfactory method is to set up two accounts with such parties—one as a creditor and the other as a customer. Then no adjustment need be made at the time of summarizing the journals, because the two accounts are treated as entirely independent of each other. The settlement of these two accounts may be handled separately—i. e., by payment in full of the account payable and by receipt of cash from the customer to settle the

account receivable—or by a payment of only the balance between the two. If settled by balance, an adjusting journal entry should be made to show on the books the two separate elements involved. This would, of course, affect both the controlling accounts and the two individual accounts. The student should work out the entries required for this.

The Problem of the Note Journals Summaries.—Of notes receivable, the large majority are usually received from customers. The summary entry for such is:

Notes Receivable
    Accounts Receivable

Where notes are received from other sources, as from officers, partners, or from outside parties to whom loans have been made, it is evident that these must not be included in the credit to Accounts Receivable, and it may be advisable also to eliminate such notes from Notes Receivable account unless they are short-term, current items, as only such should be carried under Notes Receivable. These special notes may be carried in a "Notes Receivable Special" account.

If, as sometimes happens, interest is included in the face of a note, this must be adjusted by the summary entry, as follows:

Notes Receivable
    Accounts Receivable
    Interest Income

The considerations stated above as applicable to the notes receivable journal, are of equal importance in handling the notes payable journal. A very careful analysis of the note journals should be made at a summary time, and this analysis should be shown by the summary entry.

Summary Entries for Columnar Books.—Illustration will now be given of some standard forms for summarizing the columnar journals. Sometimes the summary entries for the various subsidiary journals are made in the general journal. This seems to accomplish no good purpose and is not usually recommended. Theoretically, it is desirable to show a formal debit and credit summary for each journal footing posted to the ledger. If, how-

	ACCOUNTS PAYABLE	ACCOUNTS RECEIVABLE	GENERAL	DATE		L.F.	GENERAL	ACCOUNTS RECEIVABLE	ACCOUNTS PAYABLE
			15,000 —		Accounts Receivable				
					A (customer)		2500 —		
					B "		5000 —		
					C "		4000 —		
					D "		3500 —		

Form 29. General Journal

	L.F	SALES LEDGER	CASH	SUNDRY	A	B	C	
		(Detailed entries appear in this space)						
Totals		25,000 —	75,000 —	750 —	30,500 —	25,250 —	45,000 —	
Accounts Receivable		25,000 —						
Cash		75,000 —						
Sundry		750 —						
Dep't A, Sales			30,500 —					
" B, "			25,250 —					
" C, "			45,000 —					

Form 30. Sales Journal Summary

ACCOUNTS RECEIVABLE	ACCOUNTS PAYABLE	GENERAL	DATE		L.F.	GENERAL	ACCOUNTS RECEIVABLE	ACCOUNTS PAYABLE
				(Detailed entries appear in this space)				
		10,250 –				3,050 –		
1500 –	5,000 –	7,500 –	Dec. 31	Accounts Receivable			1,200 –	7,500 –
		5,000 –		Accounts Payable				
				Accounts Receivable		1,200 –		
				Accounts Payable		7500 –		
		16,750 –		To close		16,750 –		

Form 31. General Journal Summary

DATE			L.F	GENERAL	ACCOUNTS RECEIVABLE	SALES DISCOUNT	BANK	
Dec.	31	Totals		13,050 —	41,250 —	1800 —	52,500 —	
		Balance Dec. 1		5000 —			5000 —	
				8050 —				
		Bank, Dr.					47500 —	
		Sales Discount, Dr.					1,800 —	
		Accounts Receivable, Cr.		41,250 —				
				49300 —			49300 —	
Jan.	1	Balance		11,350 —			11,350 —	

Form 32. Cash Summary Book—Receipts Side

ever, the number of columns is small and it is readily seen that the debits and credits are equal, the formal summary is often dispensed with. So also, if there are many distributive columns of the same effect, i. e., debit or credit, as in the large departmental sales journal or the voucher register referred to on page 163, formal summary is not shown, the posting being made from the column totals as illustrated for the analytic purchase journal shown on page 161.

The Sales Journal Summary.—An illustration of the sales journal summary is given in Form 30. The Sundry items should be posted in detail from their column and their total checked in the summary entry. Where a Sundry column is not used and the Sundry items are included in the Sales Ledger column, they must be separated before the summary entry can be made. Where, also, a Cash column is not carried, as is so often the case, there being just one column for Sales Ledger, Cash, and Sundry items, from which distribution is made, the separation of the Cash items need not be shown in the summary entry, provided those items are entered also in the Sales Ledger column of the cash book. Where, due to the large number of distributive columns, the sales journal can ill afford the room for a Cash column, the above method offers the best solution of the problem.

	DATE			L.F.	GENERAL	ACCOUNTS PAYABLE	PURCHASE DISCOUNT	BANK
	Dec.	31	Totals		8000 —	37500 —	4350 —	
			Bank, Cr.					41,150 —
			Purchase Discount Cr.					4350 —
			Accounts Payable, Dr.		37,500 —			
					45,500 —			45,500 —
			Bank, as above					41,150 —
			Balance					11,350 —
								52,500 —

Form 33. Cash Summary Book—Disbursements Side

The purchase journal summary is similar to that of the sales journal, and therefore no separate illustration need be given here.

The General Journal Summary.—As shown by the illustration in Form 31, in summarizing the general journal the Accounts Receivable and Accounts Payable columns are formally totaled, ruled off, and their totals brought into the General columns on both debit and credit sides and these columns are totaled and ruled off, thus showing the equilibrium of the journal. This summary entry is posted to the proper accounts in the general ledger. There is no particular advantage, however, in this formal summary entry because the postings could easily be made directly from the column totals.

The Cash Book Summaries.—As illustrated in Forms 32 and 33, the formal summary for each side of the cash book shows the equality of the Bank and Discount columns total against the General and Accounts Receivable and Payable columns. To show the correct debit to the bank for the present month, the balance brought forward from last month and entered in both the General and Bank columns on December 1, must now be subtracted from both.

On the disbursements side, no explanation of the summary entry is necessary. It will be noted that, to show the balance of

the bank account, a restatement of the Bank column total is necessary.

Other Controlling Accounts.—It is frequently desirable to keep some accounts of the business private, such as those showing partners' investments, drawings, ratios of sharing profits, the adjusting and closing entries, the profit and loss, etc. This can be accomplished through the use of a private ledger supported by a private journal and sometimes a private cash book. For their operation a controlling account of the private ledger is set up in the general ledger, and similarly, a controlling account of the general ledger appears in the private ledger.

Sometimes subsidiary expense ledgers are used to carry a minute division of each expense group, with corresponding controlling accounts, such as Selling Expense, Office Expense, General Expense, Factory Expense. Similarly, if the consignment sales of a business are large enough to justify a separate record in a consignments ledger, a controlling account is set up in the general ledger. In a manufacturing business, Raw Materials, Goods in Process, and Finished Goods accounts are often controlling accounts for the stores, jobs, and finished stock ledgers. In a corporation, the Capital Stock account (or accounts) is a controlling account over the stock ledger.

Principle Governing Content of Subsidiary Ledgers.—Before closing this chapter, it should be stated as a fundamental principle that no accounts should be carried in a subsidiary ledger except such as are of the same general kind and can without misrepresentation be carried under the group title of the controlling account. An apparent exception to this principle is noted in connection with the proprietor's Personal account when set up in the subsidiary ledger. This should always be closed at the end of the fiscal period by transfer to the general ledger, thus leaving in the subsidiary ledger only customers' accounts receivable.

CHAPTER 19

THE WORK SHEET AND SUMMARY STATEMENTS

Purpose of Chapter.—The subject matter covering the elements of accounting has been presented in the preceding chapters and has comprised, in the main, the explanation and development of the basic accounting records, the principles of debit and credit governing entry therein, and the original memos of transactions requiring entry. Explanation has also been made of the simpler developments of the labor-saving devices, such as special journals and subsidiary ledgers with their controlling accounts, and of the financial statements drawn up as summaries of the books of account. It is purposed in this and the next chapter to present some accounting methods and procedures which have proven desirable in connection with adjusting and closing the accounting records at the end of the fiscal period. The student should at this point review Chapter 11.

Procedure Preliminary to Adjusting and Closing.—Before tracing the detail of the adjusting and closing entries through the books, explanation will be given of the usual method of insuring the accuracy of this periodic work preliminary to the formal closing of the books. This preliminary work comprises the technical procedure employed in drawing up the balance sheet and profit and loss statement before the books are closed. It thus brings about a summarization of the period's results made *outside* the books instead of *in* them. Therefore, a proof of the accuracy and correctness of the work of adjusting and closing can be secured before the summarization entries are made in the books. After proof of accuracy has thus been secured, the statements are used as a guide in making the formal adjusting and closing entries.

The information for the balance sheet and profit and loss statements comes mostly from the regular monthly trial balance taken at the end of the period just *before* the adjusting entries

are made. This trial balance must, of course, be modified to include the effect of the adjustments before a correct balance sheet and profit and loss statement can be drafted from it. For the purpose of incorporating the adjustments in the trial balance and of separating the accounts into the two groups, namely, those which are to be summarized in the profit and loss statement and those which make up the balance sheet, a regular form is used known as the accountant's "work sheet." This form and the method of its use will now be explained.

The Work Sheet.—For the work sheet, "analysis" paper is used, which is ruled in its simple form as shown in the illustration on pages 254 and 255, space being provided for:

1. Account titles
2. Trial balance items
3. Adjustment items
4. Profit and loss items
5. Balance sheet items

Where the adjustments are numerous and complicated, two additional columns are provided between items 3 and 4 for the showing of the "adjusted" trial balance. This will be a trial balance composed of items 2 and 3 combined. In simple work sheets, the adjusted trial balance is usually omitted, as items 2 and 3 can be combined mentally when they are extended into the columns for items 4 and 5.

For the purpose of illustration, a trial balance and a list of adjustments are given below, followed by the work sheet and the necessary explanatory detail.

The student must understand that the work sheet is no part of the *formal* accounting record, nor is the procedure employed by it a part of the *formal* work of closing the books. It is only a means by which a quick summarization of the period's results may be made *outside* the regular accounting records and all the data needed for the *formal* statements and the adjusting and closing entries be brought together. Its purpose is to secure and prove the accuracy of results before the formal adjusting and closing work is entered on the books. Where many or complicated adjustments are to be made, with a resulting probability of error and

difficulty in an orderly arrangement of the adjusting entries, the method of the work sheet is almost indispensable. The formal adjusting entries are then made up from the adjustment columns of the work sheet.

Illustration.—

TRIAL BALANCE, December 31, 19—

1	New York National Bank	$ 17,600.00	
2	Petty Cash	100.00	
3	Notes Receivable	15,000.00	
4	Trade Customers	35,000.00	
5	Reserve for Doubtful Accounts		$ 875.00
6	Liberty Bonds	3,000.00	
7	Merchandise Inventory	30,000.00	
9	Office Furniture and Fixtures	2,800.00	
10	Depreciation Reserve Office Furniture and Fixtures		700.00
11	Store Furniture and Fixtures	12,000.00	
12	Depreciation Reserve Store Furniture and Fixtures		3,000.00
13	Delivery Equipment	4,500.00	
14	Depreciation Reserve Delivery Equipment		2,250.00
15	Buildings	35,000.00	
16	Depreciation Reserve Buildings		7,000.00
17	Land	15,000.00	
18	Notes Payable		12,000.00
19	Trade Creditors		25,000.00
20	Mortgages Payable		17,500.00
21	U. R. Smart, Capital		90,000.00
22	U. R. Smart, Personal	10,500.00	
24	Sales		195,000.00
25	Sales Returns and Allowances	1,850.00	
26	Purchases	135,000.00	
27	Purchase Returns and Allowances		5,400.00
28	In-Freight and Cartage	1,350.00	
29	Salesmen's Salaries	13,500.00	
30	Selling Supplies and Expense	1,600.00	
31	Advertising	4,800.00	
32	Out-Freight	400.00	
33	Delivery Expense	3,300.00	
34	Office Salaries	5,000.00	
35	General Expense	2,000.00	
36	Office Expense	4,500.00	
37	Printing and Stationery	750.00	

38	Taxes	$ 2,840.00	
39	Insurance	1,750.00	
40	Interest Cost	900.00	
41	Collection and Exchange	85.00	
42	Sales Discount	850.00	
43	Interest Income		$ 1,500.00
44	Purchase Discount		1,300.00
45	Sub-Rentals Income		650.00
46	Special Police on Strike Duty	1,200.00	
		$362,175.00	$362,175.00

ADJUSTMENT DATA, December 31, 19—

Inventory of Merchandise	$26,500.00
Estimated Depreciation:	
Office Furniture and Fixtures, 10% of original cost	
Store Furniture and Fixtures, 10% of original cost	
Delivery Equipment, 16⅔% of original cost	
Buildings, 4% of original Cost	
Doubtful Accounts, ¼% of Net Sales	
Accrued Income:	
Interest Accrued on Notes Receivable	150.00
Prepaid Expenses:	
Insurance Unexpired	250.00
Advertising Paid in Advance	300.00
Printing and Stationery Supplies on hand	150.00
Selling Supplies and Expense	200.00
Accrued Expenses:	
Taxes	340.00
Salesmen's Salaries	175.00
Interest on Notes Payable	50.00
Special Police on Strike Duty	150.00
Office Salaries	100.00
Deferred Income:	
Sub-Rentals Paid in Advance	50.00

The initial step in the use of the work sheet is to enter the trial balance in the first two columns, as shown on pages 254–255. The accounts in the trial balance should be arranged in classified form before being entered on the work sheet, as this aids greatly in drawing up the statements. The various adjustment entries, debit and credit, which are almost the same as in the ledger, are then entered in the adjustment columns. The work sheet may be looked

upon somewhat as a ledger, entries in whose accounts are to be made horizontally instead of vertically. The analogy to the ledger cannot be carried too far, however. It should be noted that when it is necessary to adjust any account in the trial balance by increasing its debit, this is accomplished by entering the item in the debit adjustment column on the same line with the account to be adjusted. On the other hand, if a subtraction is to be made from a debit amount shown in the trial balance, the amount to be deducted is entered in the credit adjustment column. A complete debit and credit entry must be made in the adjustment columns for each adjustment.

In order that the student may see brought together in one place the debit and credit analyses of these entries, there is given below a debit and credit *list* of them. The student should understand that this *list* of adjustment entries does not appear anywhere in the formal accounting records. It is shown here in *journal form* only to indicate the debits and credits of the entries to the work sheet. Entries of the adjustment transactions are always made direct to the work sheet—never being set up in journal form nor in the form of a "list"—from which they are then posted to the work sheet. Each of these entries should be traced into the adjustment columns of the work sheet. The figures in parentheses just preceding the debit and credit amounts are, of course, not *ledger folios* but refer to the similarly numbered items on the work sheet so that the student will have no difficulty in tracing them.

The manner of making and cross-indexing these adjustment entries directly on the work sheet—as is the usual practice—is indicated by the cross-reference letters used. It will be noted that in most instances these entries are practically the same as the formal adjusting journal entries.

(a) Cost of Goods Sold..................	(51)	30,000.00	
(a) Merchandise Inventory.......	(7)		30,000.00
(b) Cost of Goods Sold..................	(51)	135,000.00	
(b) Purchases..................	(24)		135,000.00
(c) Cost of Goods Sold..................	(51)	1,350.00	
(c) In-Freight and Cartage......	(26)		1,350.00
(d) Purchase Returns and Allowances.......	(25)	5,400.00	
(d) Cost of Goods Sold..........	(51)		5,400.00
(e) Merchandise Inventory..............	(50)	26,500.00	
(e) Cost of Goods Sold..........	(51)		26,500.00

(f) Depreciation Office Furniture and Fixtures	(52)	280.00	
(f) Depreciation Reserve Office Furniture and Fixtures	(9)		280.00
(g) Depreciation Store Furniture and Fixtures	(52)	1,200.00	
(g) Depreciation Reserve Store Furniture and Fixtures	(11)		1,200.00
(h) Depreciation Delivery Equipment	(52)	750.00	
(h) Depreciation Reserve Delivery Equipment	(13)		750.00
(i) Depreciation Buildings	(52)	1,400.00	
(i) Depreciation Reserve Buildings	(15)		1,400.00
(j) Bad Debts	(53)	482.88	
(j) Reserve for Doubtful Accounts	(5)		482.88
(k) Interest Income (Accrued)	(54)	150.00	
(k) Interest Income	(41)		150.00
(l) Insurance (Deferred)	(55)	250.00	
(l) Insurance	(37)		250.00
(m) Advertising (Deferred)	(55)	300.00	
(m) Advertising	(29)		300.00
(n) Printing and Stationery (Deferred)	(55)	150.00	
(n) Printing and Stationery	(35)		150.00
(o) Selling Supplies and Expense (Deferred)	(55)	200.00	
(o) Selling Supplies and Expense	(28)		200.00
(p) Taxes	(36)	340.00	
(p) Taxes (Accrued)	(56)		340.00
(q) Salesmen's Salaries	(27)	175.00	
(q) Salesmen's Salaries (Accrued)	(56)		175.00
(r) Interest Cost	(38)	50.00	
(r) Interest Cost (Accrued)	(56)		50.00
(s) Special Police on Strike Duty	(44)	150.00	
(s) Special Police on Strike Duty (Accrued)	(56)		150.00
(t) Office Salaries	(32)	100.00	
(t) Office Salaries (Accrued)	(56)		100.00
(u) Sub-Rentals Income	(43)	50.00	
(u) Sub-Rentals Income (Deferred)	(57)		50.00

In order to set up some of these adjusting entries, it becomes necessary to add some new accounts on the work sheet. The student will note these appended at the end of the regular trial balance shown on the work sheet. They are, first, Merchandise Inventory, Cost of Goods Sold, Depreciation, under the latter of which the detail of the fixed assets subject to depreciation is given,

and Bad Debts. Then follow in order, the balance sheet classifications of Accrued Income, Prepaid Expenses, Accrued Expenses, and Deferred Income, provision being made to show under each of these titles the names of the accounts involved.

It will be noted that some of the adjusting entries are not set up in the adjustment columns in exact accord with the way in which the same items are entered on the ledger, but rather in accord with the use to be made of the particular items in drawing up the periodic statements. The purpose of the columns is not to make the adjustments and summarization in a formal manner as is done in the books, but to gather together all the adjusting data so that a correct separation of the balance sheet and profit and loss items can be made for use in the formal summary entries and in the statements. Thus, the detailed items—instead of the net balance—of Cost of Goods Sold are extended into the profit and loss columns. This method of handling provides in the profit and loss columns the detailed information needed for the cost-of-goods-sold section of the statement, comprising Initial Inventory, Purchases, In-Freight, Purchase Returns and Allowances, and Final Inventory.

The bad debts adjustment is entered in the adjustment columns as a debit to Bad Debts and a credit to Reserve for Doubtful Accounts. Similarly, the depreciation entry is shown in detail as a debit to Depreciation, the credits going to the various depreciation reserve accounts.

The adjustments covering expenses to be deferred to the new period require debits to Prepaid Expenses in detail, the offsetting credits being to the various expense accounts as shown in the trial balance. These credits in the adjustment column will, when combined with the corresponding debit in the trial balance column, indicate the net amount of the charge to Profit and Loss. The other classes of adjustment entries follow the same procedure.

Distribution and Proof of Work Sheet.—After all adjustments have been made, a complete distribution of the items in the trial balance and adjustment columns is made either to the profit and loss or the balance sheet columns. The difference between the profit and loss columns will thus show the net profit or loss

U. R. Smart, Work Sheet, December 31, 19—

	Account Title	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Profit and Loss Dr.	Profit and Loss Cr.	Balance Sheet Dr.	Balance Sheet Cr.
1	New York National Bank	17,600.00						17,600.00	
2	Petty Cash	100.00						100.00	
3	Notes Receivable	15,000.00						15,000.00	
4	Trade Customers	35,000.00						35,000.00	
5	Reserve for Doubtful Accounts		875.00		(j) 482.88				1,357.88
6	Liberty Bonds	3,000.00						3,000.00	
7	Merchandise Inventory	30,000.00			(a) 30,000.00				
8	Office Furniture and Fixtures	2,800.00						2,800.00	
9	Depreciation Reserve Office Furniture and Fixt.		700.00		(f) 280.00				980.00
10	Store Furniture and Fixtures	12,000.00						12,000.00	
11	Depreciation Reserve Store Furniture and Fixtures		3,000.00		(g) 1,200.00				4,200.00
12	Delivery Equipment	4,500.00						4,500.00	
13	Depreciation Reserve Delivery Equipment		2,250.00		(h) 750.00				3,000.00
14	Buildings	35,000.00						35,000.00	
15	Depreciation Reserve Buildings		7,000.00		(i) 1,400.00				8,400.00
16	Land	15,000.00						15,000.00	
17	Notes Payable		12,000.00						12,000.00
18	Trade Creditors		25,000.00						25,000.00
19	Mortgages Payable		17,500.00						17,500.00
20	U. R. Smart, Capital		90,000.00						90,000.00
21	U. R. Smart, Personal	10,500.00						10,500.00	
22	Sales		195,000.00				195,000.00		
23	Sales Returns and Allowances	1,850.00				1,850.00			
24	Purchases	135,000.00			(b) 135,000.00				
25	Purchase Returns and Allowances		5,400.00	(d) 5,400.00					
26	In-Freight and Cartage	1,350.00			(c) 1,350.00				
27	Salesmen's Salaries	13,500.00		(q) 175.00		13,675.00			
28	Selling Supplies and Expense	1,600.00			(o) 200.00	1,400.00			
29	Advertising	4,800.00			(m) 300.00	4,500.00			
30	Out-Freight	400.00				400.00			
31	Delivery Expense	3,300.00				3,300.00			
32	Office Salaries	5,000.00		(t) 100.00		5,100.00			
33	General Expense	2,000.00				2,000.00			
34	Office Expense	4,500.00				4,500.00			

35	Printing and Stationery	750.00			(n) 150.00	600.00			
36	Taxes	2,840.00		(p) 340.00	(l) 250.00	3,180.00			
37	Insurance	1,750.00				1,500.00			
38	Interest Cost	900.00		(r) 50.00		950.00			
39	Collection and Exchange	85.00				85.00			
40	Sales Discount	850.00				850.00			
41	Interest Income		1,500.00		(k) 150.00		1,650.00		
42	Purchase Discount		1,300.00				1,300.00		
43	Sub-Rentals Income		650.00	(u) 50.00			600.00		
44	Special Police on Strike Duty	1,200.00		(s) 150.00		1,350.00			
50	Inventories:								
	Merchandise Inventory Dec. 31, 19—			(e) 26,500.00				26,500.00	
51	Cost of Goods Sold			(a) 30,000.00	(d) 5,400.00	30,000.00	5,400.00		
				(b) 135,000.00	(e) 26,500.00	135,000.00	26,500.00		
				(c) 1,350.00		1,350.00			
52	Depreciation:								
	Dep. Office			(f) 280.00		280.00			
	Dep. Store			(g) 1,200.00		1,200.00			
	Dep. Del. Equip			(h) 750.00		750.00			
	Dep. Buildings			(i) 1,400.00		1,400.00			
53	Bad Debts:								
	Bad Debts			(j) 482.88		482.88			
54	Accrued Income:								
	Interest Income			(k) 150.00				150.00	
55	Prepaid Expenses:								
	Insurance Prepaid			(l) 250.00				250.00	
	Advertising			(m) 300.00				300.00	
	Printing & Stationery			(n) 150.00				150.00	
	Selling Supplies			(o) 200.00				200.00	
56	Accrued Expenses:								
	Taxes				(p) 340.00				340.00
	Salesmen's Salaries				(q) 175.00				175.00
	Interest Cost				(r) 50.00				50.00
	Special Police on Strike Duty				(s) 150.00				150.00
	Office Salaries				(t) 100.00				100.00
57	Deferred Income:								
	Sub-Rentals Income				(u) 50.00				50.00
58	Net Profit to U. R. Smart, Personal					14,747.12			14,747.12
	Total	362,175.00	362,175.00	204,277.88	204,277.88	230,450.00	230,450.00	178,050.00	178,050.00

Form 34. Work Sheet

for the period and must be transferred to the balance sheet as a vested proprietorship item. Instead of being shown as a definite addition to the proprietor's capital, the transfer is indicated as the final item on the work sheet, being a debit in the profit and loss columns to balance them, and a credit in the balance sheet columns. This difference, $14,747.12 in the illustration, constitutes the net profit for the period, and when added to the credit side of the balance sheet columns should give a total equal to the total of the debit balance sheet column. This transfer of net profit effects a proof of the accuracy of the work.

When this proof has been secured, the formal profit and loss statement should be drawn up, all of the material for which will be found in the profit and loss columns of the work sheet. The information for the balance sheet is found similarly in the balance sheet columns, all of the detail being properly grouped but a rearrangement of the order of some items being necessary. Thus, while the detail of prepaid expenses has been gathered together in one place in the work sheet, in the formal balance sheet this group will appear as the last items in the current asset section. See page 261 for the profit and loss statement and page 258 for the balance sheet.

It is thus seen that the work sheet provides a convenient method of passing through the trial balance the adjustments necessary to a summarization of the results of the period and of effecting a quick summarization of these results. The work sheet becomes the source of information for the formal statements and a preliminary stage to the adjustment and closing of the books.

The purpose of the formal adjusting entries and the manner of framing them are fully explained in Chapter 20. After the information on which they are based is brought together and entered on the work sheet and after the work of summarization has been proven, the adjustment columns of the work sheet are made the source for these entries. The *formal* adjusting entries as they appear in the journal are given on page 272.

Need for the Summary Statements.—Before setting up the formal journal entries necessary to adjust and close the books, the balance sheet and statement of profit and loss will be shown. These

two periodic statements do not form an integral part of the books of account. They are drawn up periodically and submitted to the proprietor, because the latter does not always have ready access to the books of account and often lacks sufficient knowledge of accounting to interpret correctly the information shown by the journal and ledger.

The Two Forms of Balance Sheet.—There is no standard form of balance sheet, although there is an increasing tendency toward uniformity at the present time, as the value of statistics derived from uniform balance sheets is better appreciated. In some industries which, due to governmental control, are required to submit periodic reports, prescribed forms of financial statements are used. Many trade associations have adopted standard forms of statements, with the result that a large proportion of their memberships follow these forms. The Federal Reserve Board has given impetus to the movement toward standardization by the adoption and recommendation of standard forms of statements to be used for bank credit purposes. The two forms of balance sheet illustrated below are fairly typical. For a complete discussion of the question of form, the reader is referred to Chapter 2 of Kester, *Advanced Accounting.*

The first form (illustrated on page 258) follows the principles already laid down in Chapter 3 of the present volume. This is called the "report form" and is based on the proprietorship equation when written

$$\text{Assets} - \text{Liabilities} = \text{Proprietorship}$$

Being non-technical, it is perhaps more favored by executives not versed in technical account-keeping.

The second form (illustrated on page 259) follows the proprietorship equation when written

$$\text{Assets} = \text{Liabilities} + \text{Proprietorship}$$

This form shows financial condition by means of the account form, the subtraction of the liabilities from the assets being indicated by their respective debit and credit positions in the account. It will be noticed, however, that this method of showing the subtractions is not strictly adhered to, some deductions being actually

U. R. SMART
BALANCE SHEET
December 31, 19—

Assets

CURRENT ASSETS:				
Cash—New York National Bank		$17,600.00		
Petty Cash		100.00	$17,700.00	
Notes Receivable	$15,000.00			
Trade Customers	35,000.00	$50,000.00		
Less—Reserve for Doubtful Accounts		1,357.88	48,642.12	
Merchandise Inventory			26,500.00	
Liberty Bonds			3,000.00	
Accrued Income (interest due but not paid)			150.00	
Prepaid Expenses:				
Insurance Unexpired		$ 250.00		
Advertising Prepaid		300.00		
Printing and Stationery Supplies		150.00		
Selling Supplies and Expense		200.00	900.00	$ 96,892.12
FIXED ASSETS:				
Office Furniture and Fixtures		$ 2,800.00		
Less—Depreciation Reserve		980.00	$ 1,820.00	
Store Furniture and Fixtures		$12,000.00		
Less—Depreciation Reserve		4,200.00	7,800.00	
Delivery Equipment		$ 4,500.00		
Less—Depreciation Reserve		3,000.00	1,500.00	
Buildings		$35,000.00		
Less—Depreciation Reserve		8,400.00	26,600.00	
Land			15,000.00	52,720.00
TOTAL ASSETS				$149,612.12

Liabilities

CURRENT LIABILITIES:				
Notes Payable		$12,000.00		
Trade Creditors		25,000.00		
Accrued Expenses:				
Taxes	$340.00			
Salesmen's Salaries	175.00			
Interest Cost	50.00			
Special Police on Strike Duty	150.00			
Office Salaries	100.00	815.00		
Deferred Income:				
Sub-Rentals Income		50.00	$37,865.00	
FIXED LIABILITIES:				
Mortgages Payable			17,500.00	
TOTAL LIABILITIES				55,365.00

Net Worth

U. R. Smart, Capital, January 1, 19—		$90,000.00	
Profit for the Year	$14,747.12		
Drawings	10,500.00	4,247.12	
TOTAL NET WORTH			$ 94,247.12

Form 35. Balance Sheet—Report Form

U. R. Smart
Balance Sheet
December 31, 19—

Assets

Current Assets:			
Cash—N. Y. National Bank		$17,600.00	
Petty Cash		100.00	$ 17,700.00
Notes Receivable	$15,000.00		
Trade Customers	35,000.00	$50,000.00	
Less—Reserve for Doubtful Accounts		1,357.88	48,642.12
Merchandise Inventory			26,500.00
Liberty Bonds			3,000.00
Accrued Income			150.00
Prepaid Expenses:			
Insurance Prepaid		250.00	
Advertising Prepaid		300.00	
Printing and Stationery Supplies		150.00	
Selling Supplies and Expense		200.00	900.00
			$ 96,892.12
Fixed Assets:			
Office Furniture and Fixtures	$ 2,800.00		
Less—Deprec. Reserve	980.00	$ 1,820.00	
Store Furniture and Fixtures	$12,000.00		
Less—Deprec. Reserve	4,200.00	7,800.00	
Delivery Equipment	$ 4,500.00		
Less—Deprec. Reserve	3,000.00	1,500.00	
Buildings	$35,000.00		
Less—Deprec. Reserve	8,400.00	26,600.00	
Land		15,000.00	52,720.00
Total Assets			$149,612.12

Liabilities

Current Liabilities:			
Notes Payable		$12,000.00	
Trade Creditors		25,000.00	
Accrued Expenses:			
Taxes	$ 340.00		
Salesmen's Salaries	175.00		
Interest Cost	50.00		
Special Police on Strike Duty	150.00		
Office Salaries	100.00	815.00	
Deferred Income:			
Sub-Rentals Income		50.00	$ 37,865,00
Fixed Liabilities:			
Mortgages Payable			17,500.00
Total Liabilities			$ 55,365.00

Net Worth

U. R. Smart, Capital		$90,000.00	
Profit for the Year	$14,747.12		
Drawings	10,500.00	4,247.12	
Total Net Worth			94,247.12
Total Liabilities and Net Worth			$149,612.12

Form 36. Balance Sheet—Account Form

performed, as for instance in the case of the valuation reserves which are subtracted from the respective assets to which they apply. This is done in order to render the statement more intelligible. The same principles govern the arrangement of the items and groups of items as in the first form, viz., degree of liquidity for the assets and a similar arrangement for the liabilities. The account form is used almost always when the statement is submitted for publication.

Two Forms for the Profit and Loss Statement.—There is even less standardization of form of profit and loss statement than of balance sheet. See Chapter 3 of Kester, *Advanced Accounting,* for a full discussion of the form, content and function of the statement of profit and loss. Some points of divergence in forms will be noted here. In some statements, the amount of the Selling Expense section is shown deducted from Gross Profit to secure what is called a Net Trading Profit figure. Very frequently, the figure of Net Operating Profit is shown as the difference between Gross Profit and the sum of the Selling and General Administrative Expense sections. Where this is done, the results of the financial department or treasurer's office are not included as a part of the regular or normal activities of the business, but are usually shown, after the figure of Net Operating Profit, in two sections entitled "Other Income" and "Deductions from Income." The two forms of statement shown below, while differing in terminology and sectioning, are fairly typical. They are called the report form and the account form, and are based on much the same principles as the two forms of balance sheet just discussed. Explanation of the report form has already been given in Chapter 5. The account form (illustrated on page 262) is very nearly a transcript of the ledger Profit and Loss account. It differs chiefly in that the information concerning "sales" which is summarized in the Sales account on the ledger is here set up in an inner column and shown summarized on the face of the statement. The information as to cost of goods sold is similarly summarized.

Interim Statements.—In many businesses, where the fiscal period is six months or a year, it is often desirable and important

U. R. Smart
Statement of Profit and Loss
For the Year Ended December 31, 19—

Sales			$195,000.00	
Sales Returns and Allowances			1,850.00	
Net Sales				$193,150.00
Cost of Goods Sold:				
Inventory of Merchandise January 1, 19—			$ 30,000.00	
Purchases during the year		$135,000.00		
In-Freight and Cartage		1,350.00	136,350.00	
			$166,350.00	
Less:				
Purchase Returns and Allowances		$ 5,400.00		
Inventory, December 31, 19—		26,500.00	31,900.00	
Cost of Goods Sold				134,450.00
Gross Profit				$ 58,700.00
Selling Expenses:				
Salesmen's Salaries		$ 13,675.00		
Selling Supplies and Expense		1,400.00		
Advertising		4,500.00		
Out-Freight		400.00		
Delivery Expense		3,300.00		
Depreciation:				
Store Furniture and Fixtures	$1,200.00			
Delivery Equipment	750.00	1,950.00	$ 25,225.00	
General Administrative Expenses:				
Office Salaries		$ 5,100.00		
Office Expense		4,500.00		
General Expense		2,000.00		
Printing and Stationery		600.00		
Taxes		3,180.00		
Insurance		1,500.00		
Depreciation:				
Office Furniture and Fixtures	$ 280.00			
Buildings	1,400.00	1,680.00	18,560.00	
Financial Management Expenses:				
Interest Cost		$ 950.00		
Sales Discount		850.00		
Bad Debts		482.88		
Collection and Exchange		85.00	2,367.88	
Total Operating Expenses			$ 46,152.88	
Financial Management Income:				
Interest Income		$ 1,650.00		
Purchase Discount		1,300.00	2,950.00	
Net Operating Expenses				43,202.88
Net Operating Profit				$ 15,497.12
Non-Operating Expense and Income:				
Expense—Special Police on Strike Duty			$ 1,350.00	
Income—Sub-Rental Income			600.00	750.00
Net Profit for the Year				$ 14,747.12

Form 37. Statement of Profit and Loss—Report Form

U. R. Smart—Statement of Profit and Loss
For the Year Ended December 31, 19—

Inventory, January 1, 19—			$ 30,000.00
Purchases during the year		$135,000.00	
In-Freight and Cartage		1,350.00	136,350.00
			$166,350.00
Less:			
Purchase Returns & Allow.		$ 5,400.00	
Inventory, December 31, 19—		26,500.00	31,900.00
Cost of Goods Sold			$134,450.00
Gross Profit (down)			58,700.00
			$193,150.00
Selling Expenses			
Salesmen's Salaries		$ 13,675.00	
Selling Supplies and Expense		1,400.00	
Advertising		4,500.00	
Out-Freight		400.00	
Delivery Expense		3,300.00	
Depreciation:			
Store, Furn. & Fixt.	$1,200.00		
Delivery Equipment	750.00	1,950.00	$ 25,225.00
General Administrative Expenses			
Office Salaries		$ 5,100.00	
Office Expense		4,500.00	
General Expense		2,000.00	
Printing and Stationery		600.00	
Taxes		3,180.00	
Insurance		1,500.00	
Depreciation:			
Office Furn. & Fixt.	$ 280.00		
Building	1,400.00	1,680.00	18,560.00
Financial Management Expenses			
Interest Cost Notes Payable		$ 950.00	
Sales Discount		850.00	
Bad Debts		482.88	
Collection and Exchange		85.00	2,367.88
Net Operating Profit (down)			15,497.12
			$ 61,650.00
Non-Operating Expense			
Special Police on Strike Duty			$ 1,350.00
Net Profit to U. R. Smart, Personal			14,747.12
			$ 16,097.12

Sales	$195,000.00	
Less—Sales Returns & Allowances	1,850.00	
Net Sales		$193,150.00
		$193,150.00
Gross Profit		$ 58,700.00
Financial Management Income		
Interest Income	$ 1,650.00	
Purchase Discount	1,300.00	2,950.00
		$ 61,650.00
Net Operating Profit		$ 15,497.12
Non-Operating Income		
Sub-Rentals Income		600.00
		$ 16,097.12

Form 38. Statement of Profit and Loss—Account Form

that at least approximate results be secured at interim periods. This can be accomplished by means of the work sheet without entailing the burdensome work involved in a formal closing of the books. At the time of the taking of any trial balance, the work sheet can be used as a means of making the necessary adjustments in order to secure results as to financial and operating condition. Accurate results would, of course, require as careful work as at the end of the regular fiscal period. The purpose of such interim summaries is to indicate trends rather than to show accurate and definite results. At such times, therefore, the inventory is frequently estimated, oftentimes the same amount being used as at the beginning of the period. Accruals and deferred items are not so carefully estimated nor in such great detail. Bad debts and depreciation must be taken into account. In this way approximate results for any period—frequently every month—may be secured without interfering with those for the regular fiscal period.

CHAPTER 20

ADJUSTING AND CLOSING THE BOOKS

Adjustment Entries—Kinds and Place of Record.—In Chapter 11, it was shown that the records as they are usually kept do not reflect the true condition of the business at any time *during* the fiscal period. For this reason, before summarizing the book record for the current period, it is necessary to bring onto the books a number of entries the purpose of which is to "adjust" the mixed accounts and thus make the ledger reflect the true condition. These adjustments are entered in the journal, with adequate explanations, and then posted to the ledger.

Seven types of adjustment entries are needed. They are:

1. Merchandise Inventory
2. Depreciation
3. Bad Debts
4. Accrued Income
5. Prepaid Expenses
6. Accrued Expenses
7. Deferred Income

All such items must be given consideration and entered upon the books before the books will reflect the correct results for the period. It is also oftentimes necessary to make correcting entries for items the improper entry or the omission of which are not detected until the close of the fiscal period. These errors, whenever discovered, should of course be corrected at once. Because entries of this kind are in the nature of adjusting entries, consideration of them is included in this chapter.

It may be observed here that if a business manager has an intelligent insight into the development of his enterprise, and carefully watches the volume of sales, purchases, and expenses, he may be able to forecast with some degree of accuracy the approximate results for a given period; but only by making the actual count of stock now on hand and by carefully estimating the classes

of items just mentioned, can accurate and dependable results be assured.

All these types of adjustment entries are not always found in every business, but each will be discussed in turn.

Inventory of Stock-in-Trade.—One of the most important adjustment entries is that by which the inventory of stock-in-trade is set up separately on the books. By reference to Chapter 9, it will be seen that none of the accounts connected with merchandise, viz., purchases, sales, returns, etc., contain any definite and up-to-date information as to the value of merchandise on hand. To determine the gross profit on sales this value must be known, and until the gross profit is determined the net profit cannot be ascertained. The balance sheet, the statement of profit and loss, and the Profit and Loss account, call for this information. Therefore, before these statements are made, and before the books can be closed, the value of goods on hand must be determined. The process by which this is done is called "inventory-taking."

Without discussing the detail of a system of inventory-taking, three fundamental principles can be stated relative thereto:

1. Care must be taken that all goods belonging to the firm on the date of the inventory are included.
2. Similarly, care must be taken that there is no duplication of count, i. e., that no goods are counted twice.
3. The condition of the goods, viewed from the standpoint of salability, should be indicated.

Two factors of importance enter into the determination of the inventory, viz., the quantity of the goods on hand and their value per unit. Inaccuracy in either factor may lead to a gross error in the final amount. By falsifying the count of the goods, the inventory can, of course, be inflated. A usual and more elusive method, often resorted to, consists in raising the price per unit, since the addition of even a fraction of a cent per unit may have the effect of converting an actual loss into an apparent profit. The several steps involved in the taking of an inventory may be briefly stated as follows:

1. Making plans for the inventory, including methods and staff.

2. Counting, measuring, or weighing the commodities to determine the number of units of each kind of items.
3. Entering or listing the items and quantities on inventory sheets.
4. Entering the unit prices and calculating and extending the amounts.
5. Totaling and summarizing the sheets and adding the indirect costs as explained below.

Without further indication of the reason for such valuation, it is now generally required that the inventory be valued on the basis of cost, or replacement cost, whichever is lower. The term "cost" should usually include all costs incurred up to the point of placing the goods in condition ready for sale, not only the purchase price, but also duties, freight, drayage, insurance during transit, etc. These supplementary or indirect costs are usually spread over the inventory on a percentage basis determined by the relationship of the total of these costs to the purchase price of the total net purchases. This per cent applied to the direct value of the inventory gives the amount of these indirect costs to be added.

After the amount of the inventory has been determined, it is placed on the books. However, before this is done, it is necessary that the Merchandise Inventory account be cleared of the goods on hand at the *beginning* of the period by transferring the amount to Cost of Goods Sold account. The following journal entry effects the transfer:

Cost of Goods Sold..............................	xxx	
Merchandise Inventory		xxx
To transfer the opening inventory to Cost of Goods Sold.		

The posting of this entry automatically clears the Inventory account. Similarly, Purchases account is transferred to Cost of Goods Sold by the following entry:

Cost of Goods Sold..............................	xxx	
Purchases		xxx
To transfer the period's purchases.		

In-Freight and Cartage and Purchase Returns and Allowances are next transferred to Cost of Goods Sold account. A part of

the value thus shown by Cost of Goods Sold account represents the present or final inventory, which is now transferred to Merchandise Inventory account, the entry being:

Merchandise Inventory	xxx	
Cost of Goods Sold......................		xxx
To set up the final inventory of goods on hand.		

This entry removes the asset element from the various current merchandise accounts, leaving in them when summarized or closed only the proprietorship element of gross profit, as explained in Chapter 11.

Depreciation, and Loss on Doubtful Accounts.—As indicated in Chapter 11, the amount of depreciation of particular assets and the losses due to bad or doubtful accounts are carefully estimated at the close of the fiscal period. The individual depreciation items are summarized in one or more depreciation accounts—*expense* items which are closed out to Profit and Loss. When several depreciation expense accounts are set up—instead of just one—it makes it easy to distribute this expense, when closing the books, partly to selling expenses and partly to general administrative expenses—a desirable thing in many large businesses. The *depreciation reserves,* however, which are credit items, are always handled under separate account titles and constitute the valuation account of the corresponding assets.

The journal entry covering depreciation reads as follows:

Depreciation	xxx	
Depreciation Reserve Buildings...............		xxx
Depreciation Reserve Furniture and Fixtures...		xxx
Depreciation Reserve Delivery Equipment......		xxx
Depreciation Reserve Machinery..............		xxx

The Reserve for Doubtful Accounts is the valuation account of Accounts and Notes Receivable. Assume, for instance, that the debit balances of the latter two accounts are $15,900, and the credit balance of their valuation account is $600. The difference between these two accounts, viz., $15,300, represents the present estimated value of Accounts and Notes Receivable. The journal

entry made *periodically* to record the estimated loss from uncollectible items is:

Bad Debts	xxx	
Reserve for Doubtful Accounts................		xxx

The estimate of doubtful accounts is usually based on experience as to actual losses in a given business.

When the two entries above, for estimated depreciation and bad debts, are posted, the present appraised values of those particular assets are brought on the ledger; i. e., from the values, as shown by the respective asset accounts, are taken the portions estimated to have been used up, lost through depreciation, or uncollectible. These lost portions are set up as expense items, leaving in the adjusted asset accounts true asset values as existing at the close of the period.

Adjusting Accrued and Deferred Income and Expense Items.—The method of handling adjustments of accrued and deferred income and expense items in the "current" and "new" sections of these various accounts was explained and illustrated in Chapter 11. Another method, using two separate accounts, is frequently employed. In this way the asset or liability element, as the case may be, is set up under an appropriate title in its own section of the ledger, leaving only the income or expense portion or element in the proprietorship section of the ledger. This brings about a little nicer segregation of the items, although it entails a little more work. The entries necessary for each class of income and expense items will be given and explained under its own title.

Accrued Income.—To determine the amount of the various kinds of income accrued since the last receipt of income, usually requires an examination of the sources of such income. In the case of interest income, an inspection of the notes, bonds, and accounts from which such interest comes will give a basis for computing the amount of it. Similarly for commissions, rents, and royalties, an inspection of the various contracts governing and of the sales subject to commissions made since the last receipt of commissions, of the lapse of time since the last receipt of rental income, and of the output—sales or product manufactured, or other basis—

since the last royalty settlement—each of these will provide a basis for computing the respective amounts accrued. Using for illustration a rental income accrued of $250, the following entry will bring the accrual on the books:

Accrued Income	250.00	
Rental Income		250.00

Accrued Income is the title of the asset account, set up in the current asset section of the ledger to record all accrued income. It represents a kind of account receivable claim against those liable for the payment of these various income items when they come due. The Rental Income account, now showing the true income for the period, will be closed into Profit and Loss and ruled off. After the financial statements have been made and the ledger closing completed, the following reversing entry is made:

Rental Income	250.00	
Accrued Income		250.00

The effect of the credit side of this and other similar entries is to close the Accrued Income account, it having served its purpose of making, at the close of each fiscal period, a distinct segregation of the asset element of transactions of this kind. The Rental Income account for the new period will now have an opening debit entry and will appear exactly as it would have under the other method of adjusting by means of the single account instead of the two. When the tenant makes his next payment of rent—which will be credited to Rental Income account—this opening debit balance will reduce the credit to the part equitably belonging to the new period.

Prepaid Expenses.—Prepaid expenses are usually of two kinds, viz., supplies and services. Determination of the amount of supplies on hand is usually effected by means of a physical inventory of them. Determination of the service paid for in advance is usually made on a time basis. A careful inspection of all accounts in which there might be prepayments and a computation of the amount of such are necessary for these adjustments. Frequently, these items when purchased are classified as assets and entered in the asset section of the ledger under appropriate titles such as Unexpired Insurance, Office Supplies, Prepaid

Rents, etc. In such a case, the only entry necessary is to transfer from these asset accounts the portions used up by the current period. These are transferred to appropriate expense accounts such as Insurance Expense, Office Supplies Used, etc. The entry effecting the transfer is, in the case of insurance:

Insurance Expense	xxx	
Unexpired Insurance		xxx

This entry adjusts the asset account to its proper present value and sets up the expense for the period which will be closed into Profit and Loss. If the insurance originally purchased amounted to $1,200 and that remaining unexpired at the close of the period amounted to $800, the asset and expense accounts would show as follows, after posting the adjusting entry:

Insurance Unexpired		Insurance Expense	
1,200.00	400.00	400.00	

Where these items are classified as expenses when purchased, the asset portion must be removed at the close of the fiscal period and set up in an appropriate asset account, a group account such as Prepaid Expenses serving well. The entry for this is:

Prepaid Expenses	xxx	
Insurance		xxx

The Insurance account is then closed into Profit and Loss and after the ledger is closed, the asset portion is transferred back to the Insurance expense account, this being handled in much the same way as in the case of the accrued income items explained on page 269.

Accrued Expense Items.—The items comprising this group in a given case are best determined by an inspection of the expense accounts to see whether accruals are probable in each case. Salaries, commissions, interest, rents, and royalties are the usual items involving accruals. When the amount of each has been computed, the following entry, under the two-account method, effects the adjustment, using salaries for illustration:

Salaries	xxx	
Accrued Expenses		xxx

The Accrued Expenses account is a group liability account for all items of this kind. After the ledger is closed, the above entry will be reversed. The student should set up the accounts and trace the effect of these entries on them.

Deferred Income.—Income received by the business during the present period which, however, belongs to the subsequent period, is called "deferred income," as for instance, rent received in advance from a tenant. Under the two-account method, the liability portion of items of this kind is transferred from the income account to a group liability account entitled Deferred Income, the entry being, in the case of rent:

Rent Income....................................	xxx	
Deferred Income.........................		xxx

This entry is reversed after the books are closed.

As was the case with the original classification of prepaid expenses as assets under the two-account method of handling, so here these income items when received are sometimes classified as liabilities and recorded in appropriate accounts, such as Unearned Interest, Unearned Rental Income, Unearned Subscriptions, etc., or in a group account such as Deferred Income. At the close of each period, the portion earned is transferred to an appropriate income account and closed to Profit and Loss.

A further explanation and discussion of the two-account method will be found on pages 431–435.

Corrections.—When an error has been made in any entry on the books, it should not be erased or scratched out, because by so doing suspicion may be raised as to what was expunged. The wrong item should be ruled out and the correct item written above it or wherever it belongs. This applies particularly to books of original entry whose use as evidence has often been destroyed because many erasures appeared in them.

Another way of making a correction, when an amount has been posted to a wrong account, is first to cancel the wrong posting through a similar entry on the *other side* of the same account,

and then to post it to the correct account. Cross-reference to the two accounts must be made.

When an amount has been posted to the *wrong side* of *the correct account,* e. g., $100 to the credit side of Joe Doe's account, when it should have been posted to the debit side, the incorrect credit posting should be ruled out and a correct posting made of the *original entry* whose wrong posting caused the error. Adequate cross-reference should be given so as to make the tracing of the items easy and to indicate exactly what was done.

As all entries of this kind are of a somewhat unusual nature, their exact purpose should be plainly indicated in the explanation columns. According to the methods mentioned above, the various correcting entries are made directly on the face of the ledger. It is often preferable, however, where it is possible, first to make the required correction entries in the journal with full explanation, and then to post them to the ledger.

Adjusting Entries Illustrated.—In order to indicate clearly the routine and method to be followed in summarizing the books at the close of the fiscal period, the formal adjusting and closing journal entries needed for the books of U. R. Smart will now be set up, the illustrative data being the same as were used for the work sheet in Chapter 19 to which reference should be made. In connection with the work sheet, it was stated that the adjustment columns of the work sheet are used as a guide to making the adjusting entries. As to sequence in the journal, these follow immediately, without break, the last current entry for the month. In the illustration, the single-account method is used in making income and expense account adjustments. Adjusting entries are:

Cost of Goods Sold	30,000.00	
Merchandise Inventory		30,000.00
Cost of Goods Sold	135,000.00	
Purchases		135,000.00
Cost of Goods Sold	1,350.00	
In-Freight and Cartage		1,350.00
Purchase Returns and Allowances	5,400.00	
Cost of Goods Sold		5,400.00
Merchandise Inventory	26,500.00	
Cost of Goods Sold		26,500.00
Sales	1,850.00	
Sales Returns and Allowances		1,850.00

Depreciation	3,630.00	
Depreciation Reserve Office Furniture and Fixtures		280.00
Depreciation Reserve Store Furniture and Fixtures		1,200.00
Depreciation Reserve Delivery Equipment		750.00
Depreciation Reserve Buildings		1,400.00
Bad Debts	482.88	
Reserve for Doubtful Accounts		482.88
Interest Income (Accrued)	150.00	
Interest Income		150.00
Insurance (Deferred)	250.00	
Insurance		250.00
Advertising (Deferred)	300.00	
Advertising		300.00
Printing and Stationery (Deferred)	150.00	
Printing and Stationery		150.00
Selling Supplies and Expense (Deferred)	200.00	
Selling Supplies and Expense		200.00
Taxes	340.00	
Taxes (Accrued)		340.00
Salesmen's Salaries	175.00	
Salesmen's Salaries (Accrued)		175.00
Interest Cost	50.00	
Interest Cost (Accrued)		50.00
Special Police on Strike Duty	150.00	
Special Police on Strike Duty (Accrued)		150.00
Office Salaries	100.00	
Office Salaries (Accrued)		100.00
Sub-Rentals Income	50.00	
Sub-Rentals Income (Deferred)		50.00

Purpose of Summarizing.—After the adjusting entries are posted, the ledger reflects the true financial condition as of the date of these entries. However, at this stage the information contained in the ledger is usually scattered over a large number of accounts. To obtain a concise view of the results of the business, it is necessary to summarize this information. The Profit and Loss *account* is the means by which the temporary proprietorship accounts are summarized and the net results as to profits or losses are indicated.

In this connection it will be remembered that the adjusting entries have already effected a separation of the elements of the mixed accounts, so that the temporary proprietorship items—expenses and income—applicable to the current period are now

separately shown. The transfer of these *temporary* proprietorship items to the *vested* proprietorship accounts constitutes the work of closing. The use of the Profit and Loss account as a place of summary—a clearing house—through which the *net* result can be passed on or transferred to the vested proprietorship accounts, constitutes a part of the method or technique of closing.

The Closing Entries.—The student is already familiar with the principles of debit and credit involved in making the closing entries. As indicated above, these are transfer entries and merely effect a transfer of all temporary proprietorship items to the Profit and Loss account for summary there and for the transfer of the net result to some vested proprietorship account or accounts. Like all other entries, these are made first in the journal and are posted from there to the ledger. The current sections of the various expense and income accounts are then ruled off and the ledger is said to be "closed."

Method of Closing the Books.—While the Profit and Loss account is the main summary account, use is also made of the Sales account for a partial summarization of the various sales accounts as has been explained. After this partial summarization has been made, the debit balance of the Cost of Goods Sold account is transferred to the Profit and Loss account; and similarly, the credit balance of the Sales account, representing net sales, is transferred to the Profit and Loss account. Profit and Loss then shows on the credit side net sales and on the debit cost of goods sold, the difference being the true income portion, i. e., the gross profit of the merchandising activities for the period. If it is desired to show on the face of the account the actual figure of gross profit, the Profit and Loss account may be balanced at this stage, though this is not usually done. The rest of the work of summarization is accomplished directly through the Profit and Loss account.

Closing Entries Illustrated.—The formal journal entries necessary to effect this summarization in the ledger are given below, being based on the illustration used for the work sheet and being made up directly from the various sections of the formal profit and loss statement shown on page 261. The way in which

this is done should be carefully noted. As to their sequence in the journal, these closing entries will, of course, immediately follow the formal adjusting entries illustrated above.

Sales		193,150.00	
Profit and Loss			193,150.00
Profit and Loss		134,450.00	
Cost of Goods Sold			134,450.00
Profit and Loss		25,225.00	
Salesmen's Salaries			13,675.00
Selling Supplies and Expense			1,400.00
Advertising			4,500.00
Out-Freight			400.00
Delivery Expense			3,300.00
Depreciation			1,950.00
Store Furniture and Fixtures	1,200.00		
Delivery Equipment	750.00		
Profit and Loss		18,560.00	
Office Salaries			5,100.00
Office Expense			4,500.00
General Expense			2,000.00
Printing and Stationery			600.00
Taxes			3,180.00
Insurance			1,500.00
Depreciation			1,680.00
Office Furniture and Fixtures	280.00		
Building	1,400.00		
Profit and Loss		2,367.88	
Interest Cost			950.00
Sales Discount			850.00
Bad Debts			482.88
Collection and Exchange			85.00
Interest Income		1,650.00	
Purchase Discount		1,300.00	
Profit and Loss			2,950.00
Profit and Loss		1,350.00	
Special Police on Strike Duty			1,350.00
Sub-Rentals Income		600.00	
Profit and Loss			600.00
Profit and Loss		14,747.12	
U. R. Smart, Personal			14,747.12
U. R. Smart, Personal		4,247.12	
U. R. Smart, Capital			4,247.12

It will be noted that after the net sales and cost of goods sold are transferred to the Profit and Loss account, all expenses directly connected with sales, such as Salesmen's Salaries, Advertising, Delivery Expense, Depreciation of Delivery Equipment, of Store Furniture and Fixtures, and similar items, are closed into the Profit and Loss account in one amount.

The groups of accounts closed next are those covering General Administrative Expenses, Financial Management Expenses, Financial Management Income, Non-Operating Expense, and Non-Operating Income. It will be noticed that the *order* of closing follows the order in which the same items appear in the profit and loss statement.

The Profit and Loss account now shows on the credit side the items of income and on the debit side the costs and expenses applicable to the current period. Its balance then gives the net profit (or loss) covering the period's transactions.

Throughout the period, as the profit accrues, the proprietor may have drawn against it for personal use, as shown in his Personal account. To show the amount of profit remaining in the business, the balance of the Profit and Loss account is transferred to the Personal account, the balance of which then gives the amount of undrawn or overdrawn profit. The balance of the Personal account is closed into the Capital account, the credit balance of which then represents the net worth of the business at the end of this period and at the commencement of the next.

The Profit and Loss Account.—In posting the closing journal entries to the Profit and Loss account in the ledger, usually only the group totals as indicated by the entry will appear. In small concerns where expenses and income are not classified in much detail, the individual items composing the group total are often shown. These items are, of course, the same as appear in the part of the journal entry which is contra to the group total charged or credited to Profit and Loss. The ledger Profit and Loss account for the illustration will appear as follows when completely posted:

PROFIT AND LOSS (23)

19—			19—		
Dec. 31	Cost of Goods Sold	134,450.00	Dec. 31	Sales	193,150.00
	Selling Expenses	25,225.00		Financial Management Income	2,950.00
	Administrative Expenses	18,560.00		Sub-Rentals Income	600.00
	Financial Management Expenses	2,367.88			
	Special Police on Strike Duty..	1,350.00			
	Net Profit, to U. R. Smart, Personal	14,747.12			
		196,700.00			196,700.00

Form 39. Profit and Loss Account in Ledger

Profit and Loss Not an Account for Current Entry.—It should be kept clearly in mind that the process of closing the books is merely a method or device by which the transactions for the year are *summarized* and the net result determined. This net result, whether a profit or a loss, belongs to the proprietor and must ultimately be shown in his account. It is, therefore, manifest that the Profit and Loss account is *only* a summary account and should never be used for current entry. It is the means by which the *temporary* proprietorship accounts are summarized and the medium through which the net result is cleared into some vested proprietorship account or accounts.

Effect of Closing the Ledger.—The transfer of net profit to a vested proprietorship account completes the work of closing the ledger, all temporary proprietorship accounts for the *current* period being closed out. All open balances now shown on the ledger constitute either assets, liabilities, or vested proprietorship. A post-closing trial balance contains only the accounts shown on the corresponding balance sheet. The income and expense accounts, having been cleared of their current record, are prepared to receive the record of the next period. The business cycle for this particular business has been completed and its correct history recorded.

CHAPTER 21

PARTNERSHIPS—SOME BASIC LEGAL AND BUSINESS ASPECTS

Forms of Business Organization.—The term organization, as applied to business, oftentimes has reference to several different kinds of organization, the chief of which are:

1. Organization in the proprietary sense.
2. Organization from the standpoint of the divisions or classes of business.
3. Organization as applied to the internal operation of a business.

In Chapter 2, brief explanation was made of the three basic types of organization when viewed from the standpoint of proprietorship, these being: (1) the single proprietorship, (2) the partnership, and (3) the corporation. The fundamental distinguishing characteristics of each of these types were there pointed out. When viewed from the standpoint of the broad classes or kinds of business used in serving the economic needs of mankind, businesses are said to be organized into the following groups: (1) mercantile, both retail and wholesale; (2) manufacturing; (3) mining; (4) agricultural; (5) service, professional and other; etc. From the standpoint of internal organization, among the types may be mentioned: (1) line organization; (2) line and staff organization; and (3) functional organization. Some reference to the operating functions of a business was made in Chapter 1 and is treated further in Chapter 38.

Training in accounting, either for purposes of professional practice or for use in business management, requires an intimate knowledge of these various forms of organization. The second half of this volume is devoted in the main to this field. Chapters 21–30 treat in some detail of the accounting problems to be handled in connection with ownership organization; while Chapters 31–40 deal with some of the relations between accounting

and business management or operation. The accounting problems of the single proprietorship form have been adequately dealt with in connection with the development of the basic principles of accounting in Chapters 1–20, where that form, because of its relative simplicity, was used for most illustrative purposes. The second section of the book will, therefore, be devoted to a consideration of the partnership and corporate forms of proprietary organization. While, with the increasing use of the corporate form, the partnership is not so extensively used as formerly, it is and will continue to be of sufficient importance to justify a fairly detailed treatment of it. This is particularly so because of its use in connection with smaller business units and with most personal service types of business where personal liability is the foundation of the relationship between owner and client or customer.

Partnership Defined.—In Chapter 2, reference was made to some of the features of a partnership—the purpose of its formation, advantages, disadvantages, etc.

The Uniform Partnership Act, which has been adopted and enacted by a large number of the states, defines a partnership as "an association of two or more persons to carry on as co-owners a business for profit." It is extremely difficult, at times, to determine whether the business relationships existing between two or more persons constitute a legal partnership. As to this matter the Act says:

> In determining whether a partnership exists, these rules shall apply:
>
> (1) . . .
>
> (2) Joint tenancy, tenancy in common, tenancy by the entireties, joint property, common property, or part ownership does not of itself establish a partnership, whether such co-owners do or do not share any profits made by the use of the property.
>
> (3) The sharing of gross returns does not of itself establish a partnership, whether or not the persons sharing them have a joint or common right or interest in any property from which the returns are derived.
>
> (4) The receipt by a person of a share of the profits of a business is *prima facie* evidence that he is a partner in the business, but no such inference shall be drawn if such profits were received in payment:
>
> (a) As a debt by installments or otherwise,

(b) As wages of an employee or rent to a landlord,

(c) As an annuity to a widow or representative of a deceased partner,

(d) As interest on a loan, though the amount of payment vary with the profits of the business.

(e) As the consideration for the sale of the good-will of a business or other property by installments or otherwise.

This definition brings out in a general way the reasons for the formation of the partnership and its essential features. Under this type of organization, where several persons combine their capitals, it is possible to secure a larger fund of capital than under the sole proprietorship. This opens to the partnership avenues of business usually closed to the sole proprietor. The bringing together of the man with a special aptitude or skill, or of a man with a following in the community on account of social standing and acquaintanceship, with another who has money or a plant for the operation of a business, often makes successful an otherwise unpromising undertaking.

Operating Feature and Working Organization.—Mutual agency is the essential operating feature of the partnership. By this is meant that any one of the partners can act for the others, and in the eyes of the law all are equally responsible for the management of the business. Except in the case of a limited partnership, to be explained later, each partner has an equal voice in the management and control of affairs. Unlike the corporation where for management purposes the owners' powers are delegated to a controlling board, the essential character of the partnership is that each partner has, regardless of the amount of his investment, an equal right or voice in the direction of its business. However, as among themselves, for purposes of division of duties and specialization of effort, definite power to exercise control over certain features of the business may be delegated to individual partners. But such delegation means nothing more than a method of dividing the work and is simply the working organization of the firm which may be changed at any time the majority of the partners see fit. Thus, while a partner may be limited in his actions for the firm by agreement among the partners, so that

he is not a general agent for the firm, still as to outsiders who know nothing of this internal arrangement, he has power to bind the partnership by his acts, because an outsider has a right to expect that any partner has power to act as an agent for the firm, such power being of the essence of the partnership form.

Essential Characteristics of the Partnership.—Limited life is an essential characteristic of the partnership. The partnership relation is a very personal one. It can be terminated in a number of ways, but the death or retirement of any member automatically works a dissolution of the firm, even though another man takes his place. The legal theory is that the old partnership is dead and a new one, even though bearing the same firm name, has come into existence. Thus a partnership cannot be perpetual. The relationship between the partners is so intimate that the success of the undertaking depends fundamentally on the good faith and honor exercised by each partner toward the others, and therefore any addition to the personnel of a partnership can be made only with the consent of all members of the existing firm.

The partnership being the outgrowth of the sole proprietorship, certain of the aspects of its earlier form still cling to it. For suit at law it is looked upon as a collection of single owners, and action on contract must usually be taken against the individual members of the firm. Suit by or against the partnership cannot, as a rule, be brought in the firm name. Some states, however, allow this under recent enactments. Title to personalty can be held and transferred under the firm name, but realty must be in the name of the individual members or in the name of one member acting as trustee for the firm. Thus, while in the view of the business community the copartnership is a business entity under a firm name, in the sight of the law it is not an entity but merely a collection of single owners. This legal view accounts also for the full debt liability of every partner—except in a limited partnership. In case the firm assets are insufficient to meet the claims of creditors, any or all the partners' private resources may be levied upon.

Co-ownership of the profits of a business is another feature essential to the copartnership. No sharing in the profits on any

other basis than that of co-ownership will constitute a partnership. When the question comes before the courts, the intention of the parties governs, and evidence showing that each acted as principal for himself and as agent for the others, and has shared profits as profits, would be sufficient to constitute the relationship.

The Partnership Contract.—A partnership being a contract relationship, all the requirements governing legality of contracts, such as agreement, consideration, lawful object, competency of contracting parties, etc., apply to the copartnership. The contract may be oral or in writing. In case of dispute an oral contract, on account of the difficulty of proof, is of little force in regulating the relations of the partners, and the general law of partnership would usually govern. Inasmuch as there is so great an opportunity for disputes in a relationship of this sort, it is imperative, if efficient working relations are to be maintained, that very carefully drawn articles of copartnership be agreed upon before active business is begun. These articles should contain, at least, the following:

1. The name of the firm and of the partners.
2. The kind and place of business.
3. The duration of the partnership.
4. The method of terminating it, including the withdrawal or death of a partner and the method of determining the retiring interest and of making payment for it.
5. A detailed statement of the relations between the partners, such as duties and powers, capital contributions, withdrawals of capital, salaries, division of profits and losses, interest on capital, and the time of closing the books to secure a definite determination of the partners' interests.

Even when the utmost care is exercised in drafting the articles of partnership, it almost always happens that some portion is not understood alike by all or that some contingency arises not specifically provided for. Nevertheless, it is the only way in which a comparative avoidance of misunderstanding and dispute can be obtained.

Partnerships Classified.—As to the scope of their business operations, partnerships are usually classified as general and special. The general class embraces those for the conduct of some general or ordinary lines of business. The special class comprises those formed to undertake a definite task or some particular line of business. Joint ventures come under this latter class.

As to the liability of their members, partnerships may be classified as general and limited. The general partner has the full liability, referred to above; the limited partner's liability never exceeds the amount of his investment. In a limited partnership, one or more, but not all, members may limit their liability. This class of partnership can be formed only under direct authority of statute law. A limited partner is not active in the management of the business, being more in the nature of a lender of money to the firm, who gets his return in profits instead of interest. Should he become active in the firm's management, he will constitute himself an ordinary partner with full liability. The New York statute governing the formation of the limited partnership is as follows:

Two or more persons may form a limited partnership which shall consist of one or more persons of full age, called *general* partners, and also of one or more persons of full age who contribute in actual cash payments, a special sum as capital, to the common stock—or fund—called *special* partners, for the transaction within this state of any lawful business, except banking and insurance by making, severally signing and acknowledging and causing to be filed and recorded in the clerk's office in the county where the principal place of business of such partnership is located, a certificate in which is stated:

1. The name or firm under which such partnership is to be conducted and the county wherein the principal place of business is to be located.
2. The general nature of the business intended to be transacted.
3. The names, and whether of full age, of all general and special partners therein, distinguishing which are general and which are special partners, and their places of residence.
4. The amount of capital which each special partner has contributed to the common stock—or fund.
5. The time at which the partnership is to begin and end.

Affidavit of the payment of capital must be made and a notice of the formation of the partnership published in a paper of general circulation. The limited partnership is thus hedged about with safeguards for creditors, bankers, and other interested parties, particularly by the rule that a limited partnership cannot exist unless there are one or more general partners with full liability.

The Joint-Stock Company.—The joint-stock company is a partnership or association in which ownership, voice in the management, and profit-sharing ratio are evidenced by transferable shares of stock. Control and management are exercised through a board of directors chosen by the stockholders. If the company becomes bankrupt and the firm assets are insufficient to satisfy creditors, the members are personally liable to the full extent of their private property in the same way as in a general partnership.

The mining partnership is a form of joint-stock company which operates in mining communities. Usually the mining property itself is beyond the scope of such a partnership, only the development of this property by means of a lease being contemplated. Unlike the ordinary partnership, the members of a mining partnership may assign their shares of ownership. Upon their death or bankruptcy, their interests pass to others who take their place in the partnership without the consent of the remaining partners. Thus, the confidential relationship based on the right of selection of its members, characteristic of the ordinary partnership, is largely lacking in the mining partnership.

Partners Classified.—Brief mention may be made of the following terms applied to partners to indicate varying degrees of activity within the ordinary partnership:

1. Ostensible partners—those who hold themselves out and are known to be partners.
2. Nominal—those who are known as partners but who have no real interest in the firm.
3. Dormant or silent—those who are not known to outsiders as partners and who take no active part in the management of the firm's affairs.

4. Secret partners—those who are not known as partners to outsiders but who have an interest and take active part in managing the firm.

For more detailed information as to a partner's rights, duties, and responsibilities to his copartners and to outsiders, a standard legal text on partnerships or business law should be consulted.

Specific and Implied Partnership Relations.—From the fact that the law looks upon the partnership as a combination or collection of sole owners, some of the accounting problems arising out of the partnership form of organization are unique and need careful consideration.

Of these problems, perhaps the one occurring most frequently is that concerning the division of profits. Attention was called above to the need of explicit statement on this point in the articles of copartnership. Since men combine their capitals for the purpose of realizing profits, it would naturally be supposed that all partnership agreements would be specific on that point. Yet it very often happens that many contingencies relating to the matter of profit-sharing have not been foreseen and as a result disputes arise. The fundamental principles and considerations here are:

1. Where the agreement is silent, the law provides that profits shall be divided equally among the partners regardless of the amounts of their respective investments of capital. Some partners may have made no investments of money or property, setting up their particular skill and aptitude or standing in the community as their share and contribution to the profit-earning capacity of the organization. Unless it is specifically agreed otherwise, these will share equally in any profits.

2. Where profits are to be shared in the same ratio as capital, the agreement should specify whether the basis of division is to be the original investments or the capitals as shown at the beginning of each period, which would be the original investments plus profits left in the business. This latter interpretation would usually result in a changing ratio for succeeding periods, whereas under the former interpretation the ratio of profit-sharing would be always the same.

3. Provision should be made, either in the original articles or at a subsequent time, for a change in the profit-sharing ratio in the event of a partner's withdrawing some portion of his original investment if such withdrawal is allowed. It may be stated here that an agreement between the partners as to any ratio for division of profits can be made at any time and will govern such ratio, but must be on a determinable basis.

4. Where the articles are silent as to the division of losses, the profit-sharing ratio governs. Where a different ratio is desired, specific statement of it must be made. Of course, upon the inception of an undertaking losses are not contemplated, but the experience of others should cause provision to be made for apportionment of losses in order to avoid possible difficulties or disputes.

5. Unless the articles—or subsequent agreements—provide for the payment of salaries to any or all of the partners, none are allowed.

6. The conditions governing the partners' drawings should be explicit as to the amount to be drawn during a given period. It should be stated explicitly whether excess drawings shall be regarded as a charge against capital, or as the basis for an interest charge, or simply as an excess drawing standing in the partner's current account without penalty other than a disallowance of future drawings until lapse of time brings the total amount drawn within the agreed limitations.

7. The manner of handling undrawn profits should be made definite. Are they to be transferred to the capital account and so be made a part of capital, resulting in changing capital ratios; or are they to be carried as open balances in the drawing accounts and thus take on the nature of temporary loans subject to withdrawal at any time?

Interest on Partners' Investments.—A second problem of importance in connection with partnership accounting is that of interest on partners' investments. The purpose of allowing such interest is twofold: first, it may serve as an indication of the excess of the profits in this enterprise over the return on the investment of a like amount in the money market, thus dividing the partnership profits into two parts, interest and management

earnings; and second, it may serve as a method of distributing profits up to a certain amount on the basis of capital investments, where the agreed-on ratio is different from the capital ratio, thus distributing the period's profits on two different bases or ratios.

This is done sometimes to equalize somewhat the comparatively smaller-ratio profits of the partners who have made the larger investments. This problem, however, will be treated more fully in a later chapter where the methods of booking the interest, its treatment in case of a loss instead of a profit, and the computation of interest on drawings as well as on investments will be discussed and illustrated. Suffice it to say here that disputes frequently occur in connection with these problems and that detailed provision as to their handling should be made in the partnership agreement.

Valuation and Correct Booking of Original Investments.—A third matter of importance is the valuation and correct booking of the original investments other than cash. In the case of the sole proprietor, this is of comparatively little importance because he will always reap the entire gain and therefore suffer no harm ultimately from present undervaluation of his property investments. In the partnership, however, where separate investment and personal accounts must be kept with each member, the correct valuation of the assets is of importance, inasmuch as the property of the partnership is the joint property of all partners and all will share ultimately in the effect of any under- or over-valuation at the time of investment. The partners' accounts are set up for the purpose of showing their respective interests in the enterprise, and after investments are once brought onto the books these accounts govern the equities of the various partners.

Distinction between Buying Out an Interest and Making an Investment to Secure an Interest.—The taking in of a partner by a sole proprietor or his admission as a new member to an existing partnership raises a point about which there must be a very definite understanding. A distinction must be made between purchasing from the owners an interest in the business as it stands at any given time and making an investment in the

business to secure such an interest. The first transaction is of a personal nature between the owners and a third party who is a purchaser; in the other transaction the third party, who is an investor, puts in money to acquire an interest and his investment becomes the common property of all the owners of whom he is now one. In the one case the capital of the business is not increased, in the other case it is increased by the amount of the new investment. For example, if a balance sheet shows:

Cash	$ 5,000.00	Liabilities	$ 6,000.00
Other Assets	15,000.00	A. Jackson, Capital.....	14,000.00

and Jackson sells a half-interest to B. Killian for a given consideration, the new balance sheet becomes:

Cash	$ 5,000.00	Liabilities	$ 6,000.00
Other Assets	15,000.00	A. Jackson, Capital.....	7,000.00
		B. Killian, Capital......	7,000.00

In this case no new capital has come into the business because the purchase price does not go to the business as such but to A. Jackson as a private individual.

If, however, Killian is admitted as a half-interest partner by making a cash investment equal to the amount of Jackson's interest on the basis of book values, the balance sheet of Jackson and Killian will read:

Cash	$19,000.00	Liabilities	$ 6,000.00
Other Assets	15,000.00	A. Jackson, Capital.....	14,000.00
		B. Killian, Capital......	14,000.00

showing an investment of double the capital in the original Jackson business.

The question of goodwill which frequently comes up when an interest in a going business is secured will be treated in Chapter 22, where also the manner of closing the books of the old business and opening those of the new firm will be shown.

Final Considerations.—From the foregoing discussion it is evident that the partnership relation gives rise to some of the most vexing questions which confront the accountant and the lawyer. It is a truism, therefore, that in drawing up the partnership agreement, all eventualities should be foreseen as nearly as

possible and that they should be carefully provided for. As a final safeguard it is well to provide for the submission to arbitrators of disputes subsequently arising, the decision to be binding upon all the partners. This will avoid endless, expensive, and usually unsatisfactory actions at law and will more nearly secure justice to all. As a step in the same direction, it is suggested that provision be made for the drawing up of correct balance sheets and profit and loss statements, that sufficient time be allowed each partner to examine them as to their correctness and, if satisfied, that each be compelled to subscribe to them. This will localize any dissatisfaction within a limited time period and secure its adjustment while all salient points are still fresh in the minds of the interested parties.

CHAPTER 22

ORGANIZATION OF THE PARTNERSHIP

Accounting for Partnerships.—The accounts and the accounting methods which are peculiar to partnerships are concerned wholly with the relationships among the partners. In other words, they concern only the proprietary or net worth phase of the partnership form. Accounting for the other transactions of the business follows the same methods as used for the sole proprietorship form. Methods of accounting for sales and purchases, for cash, for notes, for adjustments with customers and creditors, etc.—these are all very much the same regardless of the type of ownership organization concerned. Hence, the accounting peculiar to the partnership form will concern itself with the entries to partners' Capital and Personal accounts, arising out of investments in the business, withdrawals from the business, the distribution of profits, the admission of new partners, the retirement of partners, etc. The organization of the partnership together with the admission of new partners will be treated in this chapter. Chapter 23 will consider the various bases and methods for sharing profits, and Chapter 24 will treat of dissolutions and the distribution of net assets to the owners.

Sources of Capital.—From an accounting viewpoint, the capital of any business enterprise is the excess of its assets over its liabilities. Usually, the main fund of capital is secured by original contribution. In a partnership, the partners' investments provide the common partnership fund. Thereafter, additions to the capital may be secured in several ways:

1. Profits may be left in the business instead of being withdrawn.
2. Specific contributions may be made by the partners, which are either to be considered as additions to their capital

investment, or are to be treated as more or less temporary loans to the business.

3. A new partner may be taken in, his contribution increasing the partnership capital.

Accounting for Partners' Investments.—Accounting for the original contributions of partners differs in no way from that of single owners. Capital accounts are, of course, set up for each partner and in them are recorded the investments of each. The cash and other properties invested become the common property of all, the equitable share of which belonging to each is indicated by each partner's capital account. Since the specific property invested by each is not earmarked in the accounts and no longer constitutes the private property of the partner investing it, the necessity of placing correct values on the property and so of showing the correct equity of each partner in the common partnership property is apparent. The great importance of the partner's capital account is seen at the time of his retirement from the firm or of its complete dissolution. At such a time, each partner's capital account, after adjustment for his portion of the profits and losses, shows the amount of his claim against the common net assets from which he will receive his share upon distribution.

The investment entries for each of the partners will be made in the cash receipts journal for the cash portion, and in the general journal for both the cash and the non-cash portions of his contribution to the capital of the firm. A separate investment entry for each partner will be drafted, similar to that for the single owner, Jack Gibson, shown on page 187. Note the method of handling the cash portion of the investment by recording it in both journals.

It is particularly important that a transcript or summary of such parts of the partnership agreement as are needed by the bookkeeper in handling the partners' accounts, be set up in a long-hand statement as the first matter in the general journal. The way this should be set up is shown also by the Jack Gibson entry referred to above. This formal statement of the interrelations of the partners, so far as they affect the accounts, will cover

such matters as agreed contributions, shares of profits, salary allowances, capital and other withdrawals, interest on capital and withdrawals, loans, profits left in the business, etc. Oftentimes, information of this kind is considered confidential as among the partners and cannot, therefore, be divulged to any employee. In such a case, it is customary to segregate the partners' accounts—and frequently the Profit and Loss account—in a private ledger which will be kept by one of the partners. This ledger will be controlled on the general ledger kept by the bookkeeper through a Private Ledger controlling account. Provision for the easy operation of this controlling account should be made in much the same way as for the Sales and Purchase Ledger controlling accounts previously explained. In any event, however, a formal long-hand statement of some features of the partnership contract will always be made as the opening statement in the general journal. This statement will be followed by the formal debit and credit investment entries for each of the partners.

Original Contributions.—It sometimes happens that the partnership agreement does not state specifically how much each partner shall invest in the business. For example, the agreement may state that partner A is to contribute certain properties, i. e., place of business and equipment; that B is to contribute a stock of goods, and that the investments of the remaining partners are to consist of cash, the exact amount of which is not stated because it depends upon the valuation to be placed upon the property and merchandise invested by A and B.

After such a valuation has been made and the amounts of the cash contributions have been determined, it may be found that the total investment is more than the business requires; or it may develop that some of the partners do not have sufficient funds available to pay their shares, while others may be able to contribute more than their respective shares. It thus happens that the partnership agreement is not always rigidly enforced, some partners contributing more, and others less, than the agreed amounts. At the time this may be looked upon as a temporary arrangement, but it often results in a permanent condition. The

partnership agreement should contain provision for such a contingency. If it does not, a later agreement should be made to regulate the relations among the partners.

Adjustment of Capital Contributions.—Whenever a partner contributes more than his agreed share, it is customary to allow him interest on the excess amount, and other partners whose investment may be less than the agreed amount are usually charged with interest. This is obviously an equitable method of meeting the situation temporarily.

As a rule, these interest adjustments are handled through the Profit and Loss account, i. e., the partners who invest less than the agreed share are considered to owe interest to the partnership, and those who invest more have an interest claim against the business—not against the other partners individually. The debit or credit balance in the Profit and Loss account resulting from these adjustments is in turn distributed among *all* the partners in the profit-or-loss-sharing ratios. It should be clearly understood, however, that although these adjustments are made through the Profit and Loss account, there is no element of business profit or expense involved. For this reason, these interest entries should be made in the appropriation section of the Profit and Loss account, and should never be booked in the regular interest accounts.

The following illustrations will bring out the different methods of adjustment:

PROBLEM. A, B, and C are equal partners under an agreement to contribute each $15,000. Provision is made that excess contributions are to be credited with interest at 6% and that deficits are to be charged at the same rate. The records show that actual contributions were: A, $18,000; B, $13,000; and C, $11,000, these balances appearing in the respective capital accounts at the close of the first year.

Three methods of adjustment will be shown.

FIRST METHOD.

A's excess is $3,000, interest on which is $180.
B's deficit is $2,000, interest on which is $120.
C's deficit is $4,000, interest on which is $240.

These three interest amounts are brought upon the books by the following journal entries:

Profit and Loss	180.00	
A		180.00
B	120.00	
C	240.00	
Profit and Loss		360.00

The Profit and Loss account then shows a credit balance of $180, which is distributed as follows:

Profit and Loss	180.00	
A		60.00
B		60.00
C		60.00

The net effect of these adjustments is a credit to A of $240, and debits to B and C of $60 and $180 respectively.

Note that A is credited with $180 for his excess of $3,000, and Profit and Loss is debited with the same amount, because it is the business that owes him this interest. If this Profit and Loss debit is distributed separately, A's share of it is $60, so that his real credit on his $3,000 excess is not $180 but $120. On the other hand, the combined debits to B and C result in a credit to Profit and Loss of $360, and if this item is distributed as such, A's share of it is $120, thus making his total credit on the complete adjustment $240. A similar explanation applies to the adjustments for B and C.

Second Method. The first method was based on a consideration of the respective excesses or deficits on capital investments, but the same result may be obtained by comparing all contributions with the amount of the smallest investment, viz., $11,000 by C. This would show A's excess over C as $7,000, and B's excess over C as $2,000, and these two amounts may be treated as loans to the business. The result is that A is credited with 6% on $7,000, and B with 6% on $2,000, as follows:

Profit and Loss	540.00	
A		420.00
B		120.00

The debit to Profit and Loss is charged in equal shares to the three partners as follows:

A	180.00	
B	180.00	
C	180.00	
Profit and Loss..................		540.00

The final result shows a net credit to A of $240, a net debit of $60 to B, and a net debit of $180 to C, the same as by the first method.

THIRD METHOD. The total capital contributed is $42,000. To be equal partners under the agreement, each should have contributed one-third of the common fund, or $14,000. Actually, A's investment is $4,000 in excess of this, while B's is $1,000 less, and C's $3,000 less. The excess contribution of A, $4,000, may be looked upon as a loan to B and C as individuals, bringing their shares up to the $14,000; viz., $1,000 to B and $3,000 to C. Instead of making the adjustment through the Profit and Loss account as in the first two methods, the interest is now adjusted between the three partners as private persons, the entries affecting only the partners' personal accounts. This adjustment results in a credit to A and a debit to B for $60, A having loaned B $1,000; and in a credit to A and a debit to C for $180, A having loaned C $3,000. A's total credit is $240, and B's and C's debits are respectively $60 and $180, the same as by the other two methods.

Thus it is seen that any of the three methods employed leads to the same results. It will be observed, however, that in the example given the contemplated investments are to be equal for the three partners ($15,000), and the profit and loss is to be shared on the same basis. *The three different methods of adjusting interest lead to the same result only when the profit-sharing ratio is identical with the ratio between the contemplated investments.*

Averaging Investments.—In temporary partnerships, organized for carrying out a particular undertaking, the amount of capital needed is often not known and may vary at different stages of the undertaking. Here the partners usually contribute as need arises, and withdraw when funds not needed in the business

become free. Under such conditions, the partnership agreement should always state the manner in which the partners' interests are to be adjusted. A common method, as explained and illustrated in Chapter 23, is to compute the average investment of each partner and to use these amounts as the basis for profit-sharing. In this way the problem of interest adjustment as such is completely eliminated.

Accretions of Capital Through Profits.—At the close of the fiscal period, when results are summarized, the net profits are transferred to the partners' accounts. As the relative amount of profit left in the business by each partner usually differs, it is evident that the partners' capital accounts at the end of the period will show a different ratio from that existing at the beginning. Assume that a given partnership consists of two members, A investing $2,000 and B $1,000, and that profits are to be shared in the same ratio as these original investments, i. e., 2 to 1; assume further that A withdraws the greater part of his profits while B allows his share to accumulate, and that at the end of a number of years the capital ratios have completely changed, the capitals being, say, $8,000 for A and $24,000 for B. Obviously, under such circumstances it would not be just for A still to receive twice as much profit as B on the basis of the *original* investment ratio of 2 to 1.

Whenever it is intended that profits are to be shared on the basis of investments, the profit-sharing ratio should be changed from time to time in order to correspond with actual investments, and this should be plainly stated in the partnership agreement; or increments to capital through the accretion of profits should be treated as temporary loans subject to withdrawals and bearing interest until withdrawn. It should be the policy of the firm to offer an incentive to its members to leave their surplus profits in the business when needed, and so prevent the necessity of borrowing from outside.

Finally, it may be said that in the event of dissolution, accretions through profits constitute claims against the firm ranking before the partners' capitals. Such accretions partake of the nature of loans and for this reason they are sometimes carried in *partners' loan accounts,* to keep them separate from the original

capital investments, or are left in the "Personal" accounts which are *not* then closed into the "Capital" accounts.

Additional Contributions and Loans.—When contributions are made by partners, there should be a specific understanding as to whether such funds are to be considered as additional capital or as loans to the partnership. In the first case, the items should be shown in the capital accounts of the partners, thus requiring a reconsideration of the profit-sharing ratio—although a change is not always made; in the second case, they should be entered in the partner's loan accounts with corresponding interest adjustments, as has been explained.

Loans by partners may be evidenced by firm notes signed by all the partners. However, these notes should not be carried in the regular Notes Payable account because that account represents the firm's liability to outsiders, which must ordinarily be met promptly according to the terms of the instrument. At common law, a partner may not bring suit against the firm of which he is a member; hence there is an essential difference between these two kinds of notes. For this reason, a new account is opened entitled "Partners' Notes Payable," which is credited whenever the firm issues a promissory note to any of its members. Where the loan is not evidenced by a formal note, record should be in the partner's loan account. As stated on page 323, any loans made by partners to the business rank before regular capital claims, and this priority is not changed when such loans are evidenced by promissory notes.

Partners' Loans in Relation to Firm Credit.—Loans made by partners to the business may be viewed in two very different ways, depending upon the credit rating of the firm. If there is distrust as to the partners' standing and financial condition, the fact that they themselves, who know the real condition better than any outsider, are willing to put additional capital into the business, is the best evidence that the firm is not so badly off. Consequently, loans made by partners under such conditions help to increase the firm's credit.

On the other hand, if the integrity of any member of the firm is questionable, his loans to the business do not necessarily increase

the credit of the firm; for in case of financial trouble he may attempt secretly to withdraw part of the assets from the business and to conceal the true condition of affairs from the outside creditors. Being on the inside, he is in a position to do this before outsiders can even scent trouble. Normally, however, the loan of a partner makes a better impression than a loan from an outsider, since in case of insolvency and dissolution the partner's loan ranks *after* the claims of outside creditors.

It sometimes happens that in a partnership one or more of its members lends the firm comparatively large amounts of money and accepts demand notes as evidence of such loans. If the partner holding such a note is unscrupulous, he may present it for payment at an unfavorable time and, if the business is unable to pay, may demand an "accounting." He may even go so far as to cause its dissolution, repurchase the business at much less than its true value and so "freeze out" his copartners.

Borrowed Capital.—It may happen that a firm is obliged to borrow funds from outside in order to increase its working capital. For instance, the partners may have no available private funds for further investment and yet may not desire to admit new capital on a profit-and-loss-sharing basis. Such loans usually are on a long-time basis, and should not be included in the Notes Payable account. A special account should be opened, e.g., Notes Payable Special, or some other title plainly indicating the nature of the loan. Sharp distinction should be made between funds borrowed for the purpose of increasing the permanent capital, and money borrowed for current needs. The need for additional current funds usually results from seasonal fluctuations in business, slow collection of customers' accounts, or slow movement of stock, and is met by current borrowing at a bank; while the need for increased vested capital is caused by the insufficiency of the original capital investment to meet present conditions.

Admission of a New Partner.—In Chapter 21, a distinction was made between buying out an interest in a business and making an investment in a business. In the former case, the business acquires no new capital, while in the latter the capital of the firm is increased by the amount of the new partner's contribution.

When a new partner is admitted, he usually acquires not merely the right to share in the profits, but he also obtains a share in the net worth (often called "net assets") of the enterprise, although this does not necessarily follow his right to a share in the profits. If the new partner does secure a share in the net worth, however, it is necessary that all the partners, including the new member, agree on the value of the net assets. In this connection any of the following possibilities may arise:

1. Upon admission of the new partner, the book accounts may be considered to represent the true status of the business. A balance sheet is drawn up and the new partner is admitted on the basis of the net worth it shows.
2. It may be agreed that the assets are not worth the amount at which they are carried on the books and that a new valuation be placed upon them.
3. The business may be considered to be worth more than the amount shown by the balance sheet.

In a given case, there may sometimes be a mixture or combination of these several conditions. The problem illustrated on page 306 involves such a condition.

Admission on Basis of Book Values.—In the first case, little difficulty is met in making the opening entry admitting the new partner. For instance, if the balance sheet shows a net of $30,000, and the new partner wishes to make an investment in order to secure a one-fourth interest in the firm, the amount to be contributed is manifestly $10,000. Assuming that he makes a cash investment of $10,000, the following entry meets all accounting requirements:

Cash	10,000.00	
A, Capital		10,000.00

As a result of this cash investment of $10,000, the net worth of the new firm is increased to $40,000 and the one-fourth interest belonging to A is evidenced by his capital account at $10,000. The new firm may now continue the old records and no further adjustments need be made.

Admission on a Basis Less Than Book Values.—In the second case, it is necessary to place a new valuation upon the assets of the old firm and the accounts of the old partners must be adjusted accordingly. To illustrate, suppose A and B are equal partners and the financial status of the firm is shown thus:

BALANCE SHEET OF A & B

Cash	$ 1,000.00	Notes Payable	$ 3,000.00
Accounts Receivable	10,000.00	Accounts Payable	5,000.00
Merchandise	6,000.00	Mortgage on Bldg.	4,000.00
Building and Equipment	16,000.00	A, Capital	10,500.00
		B, Capital	10,500.00
	$33,000.00		$33,000.00

More capital is needed and C is invited to make an investment. Upon investigation he finds that there are included under Accounts Receivable many old items, of which it is estimated $1,000 will be uncollectible; that the merchandise is overvalued to the amount of $500; and that the building and equipment are worth $1,500 less than is shown on the books. He offers to make a cash investment to secure a one-fourth interest on the basis of the revised valuations and his offer is accepted.

As a result of the new valuations placed upon the assets, the net worth of the firm is now $18,000, against the old showing of $21,000. Consequently, the capital accounts of A and B are reduced from $10,500 to $9,000 each. The new partner is to invest a certain sum sufficient to acquire a one-fourth interest in the new business. Hence the combined capital of A and B, amounting to $18,000 will represent three-fourths of the new capital, and consequently the amount to be invested by C is $6,000. Thus the new capital of the firm will amount to $24,000, one-fourth of which, or $6,000, is credited to C's capital account.

The balance sheet of the new firm will show:

BALANCE SHEET OF A, B & C

Cash		$ 7,000.00	Notes Payable	$ 3,000.00
Accounts Rec.	$10,000		Accounts Payable	5,000.00
Less—Reserve	1,000	9,000.00	Mortgage on Bldg.	4,000.00
			A, Capital	9,000.00
Merchandise		5,500.00	B, Capital	9,000.00
Building and Equipment		14,500.00	C, Capital	6,000.00
		36,000.00		$36,000.00

The firm has thus secured $6,000 additional cash capital, on a basis somewhat unfavorable for the present, but inasmuch as the books now show conservative values, no real injustice results.

Admission on a Basis Higher Than Book Values.—The third case shows the firm in a position to demand something more than book values as the basis for admission of the new partner. The presumption is that the old firm is favorably known, has an established trade and patronage, built by fair dealing and judicious advertising, by its favorable location, and the numerous other ways in which a substantial business may be developed. Its standing in the community is a factor of value to the firm because it brings trade to its doors. Other conditions being equal, a firm which enjoys a good reputation is worth more than a new venture. Such a reputation is known as "goodwill" and constitutes an exceedingly valuable though an intangible asset. The essence of goodwill is the ability to produce more than normal profits, i. e., profits above the average in that line. Consequently, whenever the members of a firm consider the admission of a new partner, goodwill is regarded as one of the *assets* of the existing enterprise, thereby increasing its net worth.

Method of Valuing Goodwill.—The valuation of goodwill, however, is a difficult matter and it is a well-established principle that good accounting will not allow the asset goodwill to be set up on the books of a concern unless it has come into possession of it by purchase from another or unless a part of its own goodwill is sold to a new partner. In this case, the price received for the portion sold represents an outsider's valuation and may, therefore, become the basis for valuing the whole of it.

As stated above, the essence of goodwill is excess earning capacity. The valuation of goodwill rests, therefore, upon the profit-making ability of the business. If the average rate of profit in an industry is, say, 9% on the total capital invested and a given business under consideration is earning 12%, its excess earning capacity is 3%. This 3% is a measure or serves as a basis for measuring the value of the goodwill. No investor would be willing to pay well for a temporary or transitory excess earning capacity. Therefore, in judging the earning ability of a busi-

ness, the profit results for one year are not considered a sufficient basis. The average net profits for at least the past three years—and more, in many cases—are used.

The amount of the excess of these average net profits over the normal net profits for the whole industry—i. e., all the units of the industry competing in a given market—and the probability of the continuance of such excess profits in the future comprise the chief considerations in the valuation of goodwill. The probability of continuance rests on human estimate or judgment. If it is estimated that the above-normal profits may reasonably be expected to continue for the next five or ten years, the investor or purchaser might be willing to pay for the goodwill five or ten times the amount of the above-normal profits which would thus be his as owner of the business. If the average profits for the past five years in a given business whose net worth is $100,000 amount to $15,000 and the normal rate of profit for the industry is 9%, the above-normal profits of this business are $6,000, the difference between $15,000 and $9,000—i. e., 9% of $100,000. If the prospective purchaser judges that this above-normal profit will probably continue for at least the next six years, he might be willing to pay a maximum amount of $36,000 for the goodwill. This price is spoken of as a number of years' purchase price of the average excess net profits. Here the amount of the goodwill valuation is six years' purchase price of the average excess net profits for the past five years. It should be understood, of course, that the respective bargaining abilities of the buyer and seller will determine the actual price which will be paid. The above method of estimating the value of goodwill, however, gives a basis for determining its sound value.

Illustration of Admission Based on Goodwill Computation.—The following case will serve as an illustration of the problems involved when a new partner is admitted under conditions requiring a consideration of goodwill.

PROBLEM. Assume that X has a one-half interest in a firm, and Y and Z a one-fourth interest each, the balance sheet showing the following summarized facts:

BALANCE SHEET OF X, Y & Z

Cash	$ 2,000.00	Liabilities	$10,000.00
Other Assets	48,000.00	X, Capital	20,000.00
		Y, Capital	10,000.00
		Z, Capital	10,000.00
	$50,000.00		$50,000.00

An outsider, R, is now to be admitted to a one-fifth interest by making an investment in the business on the basis that its goodwill is worth $10,000. The relative shares of the others are to remain as before. Hence, after R's admission, X will have two-fifths, and Y, Z, and R one-fifth interest each. It is further assumed that no revaluation of the tangible assets is necessary.

The net worth of the old firm, according to the books, is $40,000, and if this were taken as the basis for admitting R, an investment of $10,000 would be sufficient to acquire a one-fifth interest in the new firm. However, the business is considered to be worth $10,000 more than the $40,000 shown in the balance sheet, and for this reason, instead of paying $10,000, R is required to invest $12,500. The excess of $2,500 is paid by R as an offset to the shares of the others in the goodwill of the firm.

There are three ways of treating this goodwill element, viz.:

FIRST METHOD. Debit the Goodwill account for the amount actually paid for it by R, viz., $2,500, and credit the capital accounts of the old partners in proportion to their shares in the profits:

Goodwill	2,500.00	
X, Capital		1,250.00
Y, Capital		625.00
Z, Capital		625.00

As a result of this entry, the capital account of X is $21,250, and those of Y and Z $10,625 each. The capital account of R, however, shows a credit of $12,500. In other words, R's interest in the net assets—although not in the profits—of the business as shown by his account is *larger* than that of Y and Z, while as a matter of fact he is to have an equal share. For this reason, this method of treating goodwill is not satisfactory.

SECOND METHOD. This method regards the matter from a different standpoint. Taking book values as a basis, the share bought by R is worth only $10,000. However, on account of

goodwill, the real value of this share is considered to be higher and R is required to pay $12,500 for it. Hence, in order that the books may show actual values, the goodwill item must be added to the assets of the old firm, at the same time increasing the capital accounts of X, Y, and Z in proportion to their shares in the profits. The entry is:

Goodwill	10,000.00	
X, Capital		5,000.00
Y, Capital		2,500.00
Z, Capital		2,500.00

As a result of this adjustment, the capital of the old firm is shown as $50,000. R now invests $12,500, and the capital is thereby increased to $62,500. The capital accounts of the four partners now show $25,000, or two-fifths for X, and $12,500 or one-fifth each for Y, Z, and R.

THIRD METHOD. Under this method of handling goodwill, the extra $2,500 invested by R is treated as a bonus for distribution among the members of the old firm, their capital interests in the new firm remaining the same as in the old and R's appearing at $10,000. There is no objection to this method if R is satisfied.

Of the three methods, the second usually proves the most satisfactory.

A similar problem involving the handling of goodwill is encountered when a member of an existing firm sells out his interest, including a share of the goodwill, to one who takes his place in the firm. Here the transaction may be looked upon as a private deal between buyer and seller, in which case the buyer merely succeeds to the seller's interest in the firm, his capital appearing on the books at the same amount as the seller's former capital figure even though the new partner pays more for it; or the goodwill may be brought onto the books and the capitals of all the partners be shown at increased figures, as under the second method discussed above.

Admission on Arbitrary Basis.—A person may become a partner in a business without making an investment in it. In such case, he acquires a share of the profits but no share of the net worth, although by leaving some of his profits in the business

he may subsequently secure a share of the net worth. Even though he may not have a share of the net worth, as a partner he is usually liable for partnership debts. In professional partnerships—legal, accounting, etc.—it is a common practice to admit a member of the staff whose ability, service, and worth justify, to a share in the profits without giving him a share in the net worth. Such a partner is often called a non-goodwill partner to distinguish him from the members of the firm owning its net assets, who are termed goodwill partners.[1]

In a business partnership, it is not unusual to admit a person to the partnership without requiring an investment in it. A sales manager, factory superintendent, or other executive may be taken in on the basis of a share in the profits only.

Also, a person may be admitted to a partnership by making an investment in it of a capital sum determined on a more or less arbitrary basis. In such cases, he usually secures a definite share of the profits and only such share of the net assets as his investment entitles him to. Thus, C may invest $10,000 and secures a one-eighth interest in the profits of a business the capital of which, after C's investment, is $50,000. At the time of investment, he thus has a one-fifth interest in the net worth and a one-eighth interest in the profits. In such a case, it is a common practice to allow interest on partners' capitals. No new features are involved in accounting for such a situation.

Consolidation of Partnerships.—There are various reasons why the consolidation of partnerships may be of mutual advantage to the individual firms concerned. When two or more firms consolidate, the competition which formerly existed between them is eliminated and cooperation takes its place. Also by uniting their business, many of the operations which were formerly performed separately are now merged, with resulting savings. Many other advantages may result from such consolidations.

From the standpoint of the accountant, the consolidation of partnerships is essentially the same as the admission of new partners, the same principles applying to both. Before actual consolidation takes place, it is necessary for each of the partner-

[1] See Chapter XII, Accounting Theory and Practice, Vol. III, for a full treatment of this type of partnership.

ships to place a new valuation upon its assets and for all concerned to agree upon the new figures. In almost all cases, goodwill is an important factor. The valuation of goodwill requires an investigation of the profits and profit-earning capacity of the member firms. Conditions affecting the profits of the various firms must be equalized as nearly as possible so that the earning capacity of each can be compared on an equitable basis. Such questions as the way in which partners' salaries, interest on capitals, withdrawals, and loans have been handled; the relation of outside sources of income, if any, to the profit of any of the member firms; and whether the consolidation contemplates taking over such source of profits—these and similar questions must be considered and treated equitably for all concerned.

The following illustration is given to indicate the bookkeeping problems incident to consolidations:

PROBLEM. A and B, equal partners in an established business, consolidate with C and D, equal owners of an allied business. A and B are each to have a one-third, and C and D each a one-sixth interest in the new firm. The following balance sheets show their financial positions:

BALANCE SHEET OF A & B

Cash	$ 2,500.00	Notes Payable	$ 5,000.00
Notes Receivable	1,000.00	Accounts Payable	8,000.00
Accounts Receivable	22,000.00	Mortgage on Real Estate	4,000.00
Merchandise	10,000.00	A, Capital	16,000.00
Furniture and Fixtures	2,500.00	B, Capital	16,000.00
Delivery Equipment	1,500.00		
Real Estate	9,500.00		
	$49,000.00		$49,000.00

BALANCE SHEET OF C & D

Cash	$ 5,000.00	Notes Payable	$ 5,000.00
Accounts Receivable	15,000.00	Accounts Payable	7,750.00
Merchandise	8,000.00	C, Capital	9,000.00
Furniture and Fixtures	2,000.00	D, Capital	9,000.00
Horse and Wagon	750.00		
	$30,750.00		$30,750.00

A careful valuation of the various properties shows the figures of the balance sheet of C & D to be conservatively estimated. In regard to A & B's figures, however, it is decided to allow $2,000 for possible

bad debts, and to value their merchandise at $9,000, delivery equipment at $1,000, and real estate at $9,000. Furthermore, it is agreed that C & D's goodwill is to be valued at $5,000, and A & B's at $10,000.

After the adjustments the new balance sheets appear thus:

BALANCE SHEET OF A & B

Cash		$ 2,500.00	Notes Payable	$ 5,000.00
Notes Receivable		1,000.00	Accounts Payable	8,000.00
Accounts Rec.	$22,000		Mortgage on Real Estate	4,000.00
Less—Reserve	2,000	20,000.00	A, Capital	19,000.00
Merchandise		9,000.00	B, Capital	19,000.00
Furniture and Fixtures		2,500.00		
Delivery Equipment		1,000.00		
Real Estate		9,000.00		
Goodwill		10,000.00		
		$55,000.00		$55,000.00

BALANCE SHEET OF C & D

Cash	$ 5,000.00	Notes Payable	$ 5,000.00
Accounts Receivable	15,000.00	Accounts Payable	7,750.00
Merchandise	8,000.00	C, Capital	11,500.00
Furniture and Fixtures	2,000.00	D, Capital	11,500.00
Horse and Wagon	750.00		
Goodwill	5,000.00		
	$35,750.00		$35,750.00

It is agreed that C and D's capitals are each to be taken as representing one-sixth of the capitalization of the new firm, and A and B are each to contribute $4,000 in cash to bring their capitals up to the required amounts.

The opening balance sheet of the consolidated firm will read:

BALANCE SHEET OF A, B, C & D

Cash		$15,500.00	Notes Payable	$10,000.00
Notes Receivable		1,000.00	Accounts Payable	15,750.00
Accounts Rec.	$37,000		Mortgage on Real Estate	4,000.00
Less—Reserve	2,000	35,000.00	A, Capital	23,000.00
Merchandise		17,000.00	B, Capital	23,000.00
Furniture and Fixtures		4,500.00	C, Capital	11,500.00
Delivery Equipment		1,750.00	D, Capital	11,500.00
Real Estate		9,000.00		
Goodwill		15,000.00		
		$98,750.00		$98,750.00

The entries necessary to record the various adjustment and investment transactions are, in abbreviated form, as follows:

ON THE BOOKS OF A & B

(1) Revaluation Profit and Loss	4,000.00	
Reserve for Doubtful Accounts		2,000.00
Merchandise		1,000.00
Delivery Equipment		500.00
Real Estate		500.00
(2) Goodwill	10,000.00	
Revaluation Profit and Loss		10,000.00
(3) Revaluation Profit and Loss	6,000.00	
A, Capital		3,000.00
B, Capital		3,000.00

ON THE BOOKS OF C & D

(4) Goodwill	5,000.00	
C, Capital		2,500.00
D, Capital		2,500.00

On the basis of these corrected balance sheets which will now be reflected on the books of the two concerns, the opening entries for the new consolidated concern will be made on its books. This entry will take into account the additional cash investments made by A and B. The set-up of this entry is left to the student. It may happen that the set of books used by one of the former firms, say, A & B, will be continued instead of an entirely new set. The student should also work out the entries needed in such a case.

CHAPTER 23

PARTNERSHIP PROFITS

Ambiguity of Definition of Profits.—The term "profits" as applied to business is used with a great variety of meanings. When a concern speaks of its profits, it is difficult to know exactly what is intended, because the meaning of the term depends very largely on the methods of accounting of that particular concern. The reported profits of different firms are not, therefore, a true basis for judging their relative worths. For instance, although the net profits of a single proprietorship and of a partnership are usually determined in the same manner, there is nevertheless variation in the treatment of some items such as salaries, drawings, interest on capital invested, etc. The partnership form, like the single proprietorship, contemplates an investment on the part of the owners not only of capital but also of time and effort. This is one of the differences in working organization between these forms of business and the corporation. Investment in the corporation is of capital only. If services are employed by the corporation, they are paid for and charged as services, salaries, etc.

Compensation for Time and Services.—In the partnership form of organization, the active and direct management of the business is usually vested in the owners. Where this is not the situation, as in a limited partnership, or whenever one or more of the partners does not take an active part in the management of the business, his share of the profit is usually curtailed by the allowance of salaries to the managing partners before any distribution of profits in the agreed ratio is made to the partners. Thus, partnership profits include not only the salaries of the owners but, in general, a recompense for the time and ability of the proprietors The man who makes an investment in a partnership does so usually because he desires to invest his time as well as his capital. He

expects, therefore, to receive not only a fair rate of interest on his money but also pay for the services he renders.

Interest on Investment.—The rate paid for the use of money is dependent both on the money market and on the element of risk involved in the particular investment. In mining ventures, for instance, where there is frequently considerable uncertainty as to the return of the principal, the interest rate is sufficiently high to offset, during the life of the loan, the possible loss of the principal at the end. So an investor in a partnership, because of the greater element of risk in comparison with other and safer investments, requires a higher rate of return in interest than he would ordinarily secure through the investment of his capital in sound securities.

Partnership Profits Defined.—Partnership profits, therefore, contain these two elements—interest and recompense for services. If profits are extraordinary or above normal, such excess may be and usually is the measure of the more-than-average ability of the partners, unless it results from the monopolistic character of the business.

In speaking of profits, the term is used in a technical accounting sense and has reference to the manner of their showing in the Profit and Loss account and its content. That account or the Profit and Loss statement usually develops a so-called "net profit" which is distributed to the partners. Such profits are more easily defined by stating what should not be considered in their determination, than by attempting to give an itemized list of the income and expense items entering therein.

In accordance with the theory of the law of partnership, the net profit of a partnership is the balance of the Profit and Loss account before interest on owners' capital investments and the recompense to the partners on account of time and services are taken into account. In the accounting for an ordinary partnership, such items as interest on capital investments, salaries to partners, etc., are not to be considered as expense items to be deducted from profits before the net earnings are determined, but as a part of the net profits to be distributed to the several owners of the business. The payment of salaries and interest on capital is made

simply for the purpose of distributing net profits according to certain methods agreed upon by the members of the firm.

Profit and Loss for Comparative Purposes.—For the purpose of comparing results between different periods, the Profit and Loss account should have a fairly uniform content from year to year. It should set forth the amount of the net operating profit, in the calculation of which account should be taken of all ordinary income and expenses incurred in the operation of the business. This will provide the basis for comparison, as between periods, of the ordinary normal activities of the business.

In the "Non-Operating" or "Other Income" sections, any "outside-the-business" income and expense should be shown, such as income from outside investments, and expenses in connection therewith. Items of extraordinary income and expense, however, such as the profits arising through the sale of goodwill, the sale of real estate, extraordinary losses from fire, etc., are frequently taken directly into the partners' accounts so as not to destroy the value (for purposes of comparison) of the results shown by the Profit and Loss account from year to year.

In this way, while the purpose of the Profit and Loss account is to summarize the temporary proprietorship accounts, some proprietorship items may be omitted for the sake of making the summary of greater value to the proprietors. Such a method of handling does not conflict with principles previously laid down, but rests upon the general principle that accounting methods and forms must be flexible in order to conform to the requirements of particular cases; else they fail in fulfilling their full purpose.

When profit and loss accounts are used for comparisons among several different businesses, as distinguished from their use year by year within the same business, careful adjustment must usually be made to place them on a strictly comparable basis. This is particularly true in the comparison of such accounts of a partnership with those of a corporation. As stated before, all salaries paid are, in a corporation, charged to the operating expenses of the business, whereas in a partnership they are omitted from operating expenses and handled as a distribution of net profits. In comparing the relative profitableness of a corporation and a

partnership, it is necessary to adjust the figure of net profits because of the difference in method of handling salaries of owners. Other adjustments may also be necessary, covering such items as depreciation, doubtful accounts, general level of salaries, etc., where the use of different rates and scales will, of course, affect the net profit showing. Adjustment of items of this latter kind must usually be made, regardless of the type of ownership organization, when it is desired to use the profit and loss results for comparative purposes.

Allowance of Salaries.—The allowance of salaries to partners is not so much for the purpose of measuring the excess of the profits of the partnership over what the individual owners might have earned by working for others, as it is for the purpose of equalizing or adjusting their interests on an equitable basis. When, on the one hand, men invest their abilities and services in addition to their capitals, and on the other hand, the profit and loss-sharing ratio is determined on the basis of capitals invested, the greater ability of a given partner may be recognized and compensated by a salary. Thus a partner of exceptional ability secures a larger share in the profits by receiving a fixed amount under the head of salary, the remaining part of the net profits being divided among all the partners in the profit and loss-sharing ratio.

Allowance of Interest.—As explained in Chapter 21, it is not unusual in partnerships where the profit and loss ratio differs from the capital ratio, to allow interest on capital. The effect of such a provision is to secure a distribution of profits on a dual basis, viz., a part as interest on the capitals in the capital ratio and the remainder in the profit and loss ratio. Thus, two partners, A and B, whose capitals are $10,000 and $15,000 respectively, with a 6% interest allowance on capital and a subsequent half-and-half distribution of profits, share the profits on two different bases. Suppose the profits are $6,000. The interest requirement will give A $600 and B $900—a distribution of $1,500 of the profits on a capital ratio, i. e., in the ratio of 2 to 3—after which $4,500 will be divided equally. Interest on partners' capitals is thus in no sense an operating expense and should be handled always in the appropriation section of the Profit and Loss account.

If the partnership agreement makes specific provision (but not otherwise), interest may be charged on partners' drawings. This is merely an additional device for adjusting the partners' interests, and causes a slight difference in the net shares of profits.

Interest on Partners' Loans.—Careful differentiation must be made between interest on partners' capitals and on partners' loans. If a loan is secured from outside parties, its interest cost is a business expense, to be taken into account before determining net profits. A loan from a partner does not in the least change the manner of showing its cost. Interest on partners' loans is not, therefore, to be handled in the appropriation section of the Profit and Loss account, but should be charged to the regular Interest Cost account, which is cleared in the regular way through Profit and Loss. The credit is to Cash if actually paid, or to the partners' personal accounts if unpaid, although the amount is sometimes credited to the partners' loan accounts in order to secure a compounding of the interest.

Reserved Profits.—In rare cases, before the partners' shares in the net profit are determined, a portion of it may be reserved for some specific purpose. The portion so reserved is transferred from Profit and Loss to some specified reserve account, to indicate the retention of the profits in the business. If the profits were transferred to the partners' accounts, they might be subject to withdrawal from the business. Even when shown in the reserve account, however, they belong to the proprietors and are just as much a part of the net worth of the business as if credited to the proprietors' accounts. Such reservation of profits may be for the purpose of providing for the replacement of some fixed asset when it wears out, as buildings, machinery, etc., or for meeting a liability when it comes due, or for some similar purposes. Such reservations, however, are seldom made in partnership accounting and a complete treatment of the subject is reserved for the work of the second year in connection with corporation accounting.

It should be noted that reserves created from profits are not to be confused with valuation accounts, such as reserves for depreciation and doubtful accounts. Valuation accounts in no sense represent a reservation of net profits. They represent the credit

side of certain asset accounts. The contra debits—to depreciation or bad debts—of these credit reserves are expenses of the business which must be taken into account before the amount of net profit can be determined.

Closing Profits to Partners' Accounts.—The disposition of profits under a partnership does not differ materially from that under the single proprietorship form. When the net profits are determined, they belong to the proprietors and are usually transferred to their accounts. The method of transfer may be either by way of the partners' personal accounts or direct to the capital accounts. The principle involved in either treatment was discussed at the time of closing the books for the single proprietorship and will not be repeated here. Where the partners do not desire to have any change shown in their original capital accounts, the profits may be transferred to the loan accounts of the partners or stand as open balances in their personal accounts.

The Appropriation Section—Distributing a Deficit.—The appropriation section of the Profit and Loss account shows the distribution of net profits to the partners' accounts. A thorough understanding of the partnership agreement is necessary before the proper distribution can be made. If the agreement provides for salaries and interest on capitals and drawings, these requirements must first be met, even though the net profits are insufficient to satisfy them; they are preferred claims against the profits and must be distributed even though the period's results show a loss instead of a profit. Their purpose, as explained above, is to adjust conditions and interest among the partners preliminary to their sharing in the profit and loss ratio. If this adjustment results in a deficit, such deficit will be distributed in the agreed ratio and to that extent nullify some portion of the profits distributed as salaries and interest. If specific provision in the articles of copartnership requires a different handling of the salaries and interest items, that provision of course governs. The agreement sometimes provides that partners' salaries and/or interest on investments shall be handled, upon closing the books, as regular expense items so that they do not appear as a part of the distribution of

net profits. Under both methods of handling, the partners' total shares for all these items are the same.

If any of the partners leave profits in the business, this usually results in a changing ratio of the capital account balances. Where the distribution of profits is based upon the original contributions, it is advisable to transfer the profits left in the business to separate loan accounts for the partners. The partners' capital accounts then always show their original contributions.

Handling Partners' Salaries.—Partners' withdrawals and salaries are usually handled in very unsystematic ways. The amount of the drawings allowed each partner during a given period—week or month—should be definitely determined by agreement, and regular checks should be issued for these amounts. The payment of partners' personal bills and the handling of any other personal items should, as a matter of standard practice, be made out of personal funds.

If the partnership agreement provides for salaries these should be credited, when due, to the partners' drawing accounts which will then be charged with all actual drawings, whether for salary or otherwise. The offsetting charge at the time the salary credit is made, should be to a "Partners' Salaries" account, which at the close of the fiscal period is closed into the appropriation section of the Profit and Loss account, thereby showing in it the proper distribution of profits as salary.

To illustrate the distribution of profits when salaries and interest on investments are to be considered, assume the following data:

PROBLEM. The partners' capital accounts are: A, \$10,000; B, \$16,000; and C, \$24,000. Their salary accounts are: A, \$5,000; B, \$4,000; C, \$3,000. Their drawing accounts show the following credit balances: A, \$2,000; B, \$500; C, a debit balance of \$1,000. Interest is to be allowed at the rate of 6% per year. The net profits for the six months just ended amount to \$15,100. The profit and loss-sharing ratios are: A, 1/4; B, 3/8; and C, 3/8.

The appropriation section of the Profit and Loss account will appear as follows:

PROFIT AND LOSS

Net Profit carried down.	15,100.00		
	175,000.00		175,000.00
Partners' Salaries	12,000.00	Net profit to be distributed	15,100.00
A, for interest on capital	300.00		
B, for interest on capital	480.00		
C, for interest on capital	720.00		
A, ¼ share of remaining profits	400.00		
B, ⅜ share of remaining profits	600.00		
C, ⅜ share of remaining profits	600.00		
	15,100.00		15,100.00

The following general journal entries—shown without the usual detailed explanations—will be necessary to effect the distribution of profits:

(1) Profit and Loss...............................	12,000.00	
Partners' Salaries		12,000.00
(2) Profit and Loss...............................	1,500.00	
A, Drawing		300.00
B, Drawing		480.00
C, Drawing		720.00
To distribute profits for interest allowed on capitals.		
(3) Profit and Loss...............................	1,600.00	
A, Drawing		400.00
B, Drawing		600.00
C, Drawing		600.00
To distribute the balance of profits in the agreed profit and loss-sharing ratios.		

Entry (1) is necessary to close off Partners' Salaries account, which it is assumed was charged with the salaries of partners as they accrued, the offsetting credit being entered in each partner's Drawing account. This last entry really effects the distribution of salaries as a part of the profits before their determination at the close of the period. When profits are definitely determined,

Partners' Salaries account is, therefore, transferred to the appropriation section of Profit and Loss account.

Entry (2) distributes $1,500 of profits (3% on total capital of $50,000) in capital ratio, and entry (3) distributes the balance of profit—or loss—in the profit-sharing ratio. The posting of these three entries to Profit and Loss account will close that account.

If the partners desire the balances of their drawing accounts merged with their capital accounts, the following entries will be necessary:

A, Drawing	2,700.00	
A, Capital		2,700.00
B, Drawing	1,580.00	
B, Capital		1,580.00
C, Drawing	320.00	
C, Capital		320.00

Profits Determination upon Admitting a New Partner.—Particular care should be taken to determine as nearly as possible the correct net profit at the time of any change in the partners' relations. Upon the admission of a new partner, failure to make entry in the old partners' accounts of any profit rightfully belonging to them leads to its being shared with the new partner and consequently results in a loss to the old partners. In like manner, the deferring of an expense charge—rightfully belonging to the period before the admission of the new partner—to the period after the admission, results in a wrongful charge to the new partner. Similarly, when a partner is admitted on a changing profit ratio basis (as when, for example, he is to receive a one-fourth share for three years, at the end of which time he is to have a one-third share), an incorrect determination of profits at the end of the three-year period may mean a loss either to him or to the old partners. So long as the same partnership and the same profit and loss-sharing ratios continue, no injustice results through failure to include some such items in their proper periods, as they are cumulative and their effect will be recorded in later periods. However, this is no excuse for the inaccurate determination of profits at any time.

Average Investment as a Basis for Profit-Sharing.—Attention should be called to a basis for profit-sharing sometimes

employed for special partnerships, entered into for the performance of a specific contract or for doing any special work. In these cases, the capital needed may not be known at the start, or, if known, may not all be required then but is to be furnished by whichever partner may have available funds at the time of need. In such cases, the basis of profit-sharing may be made the amount of capital furnished by each partner and the length of time of its use in the enterprise. Two methods of determining the ratio may be employed.

First Method. Each investment may be multiplied by the number of days occurring between the date on which the investment was made and the date of profit determination, giving a result which may be called "day-dollars" of investment, in a sense similar to the term foot-pound in physics. From the total day-dollars of investment must be subtracted the day-dollars of withdrawals, arrived at similarly, thus showing net investment in terms of day-dollars. The sum of all the investments in day-dollars becomes the basis on which to prorate profits, each partner's share being the part which his individual net investment bears to this total net investment.

Second Method. The original investment of each partner may be multiplied by the time it remains unchanged, i. e., until it is added to or some portion is withdrawn. Similarly, this changed capital is multiplied by the time it remains fixed, and so for every change. The total of these items constitutes each partner's net investment, from which the profit-sharing ratio is determinable as above. In the problem given below, for purposes of illustration the dates are so taken that the calculation can be made on a month-dollar instead of a day-dollar basis, thus shortening the operation. The capital accounts of the partners, showing investments and withdrawals, are as follows:

A. B. Card

19—		19—	
Jan. 15	2,500.00	Jan. 1	10,000.00
Apr. 1	4,500.00	Mar. 15	7,500.00
June 15	1,500.00	June 1	5,000.00

D. E. Folwell

19—		19—	
Feb. 1	3,000.00	Jan. 1	5,000.00
May 15	2,000.00	15	5,000.00
		Apr. 1	5,000.00
		June 15	2,500.00

Profits as on July 1, 19—, were $5,000. Determine each share.

Solution

(Using the second method)

Amount		Months	Month-Dollars	
A. B. Card:				
$10,000	×	½	$ 5,000	
7,500	×	2	15,000	
15,000	×	½	7,500	
10,500	×	2	21,000	
15,500	×	½	7,750	
14,000	×	½	7,000	
		6		$ 63,250
D. E. Folwell:				
$ 5,000	×	½	$ 2,500	
10,000	×	½	5,000	
7,000	×	2	14,000	
12,000	×	1½	18,000	
10,000	×	1	10,000	
12,500	×	½	6,250	
		6		55,750
Total investment in month-dollars..........				$119,000

Card's share of the profit: $\frac{63,250}{119,000}$ of \$5,000 = \$2,657.56

Folwell's share: $\frac{55,750}{119,000}$ of \$5,000 = \$2,342.44

The first method will, of course, give identical results. The second method has the slight advantage that the Investment Months column will always total the same as the length of the fiscal period, provided each partner makes his initial investment at the first of the period—which is not always the case—and thus acts as a check on the accuracy of that part of the calculation.

CHAPTER 24

PARTNERSHIP DISSOLUTION AND JOINT VENTURES

Temporary Nature of Partnership.—Because of its personal character, a partnership has necessarily a limited duration. It must look forward to the time when its business will have to be closed up. The chief causes leading to a dissolution are briefly reviewed here.

Causes of Dissolution.—1. *The withdrawal of any partner.* Under ordinary circumstances, a partner cannot be held to a specific performance of his contract. If he becomes dissatisfied, suspicious, or desires for other reasons to withdraw from his contract before its expiration, he has that power. Such withdrawal cannot be looked upon as a right but only as a power to be exercised under unusual circumstances. If his withdrawal before the agreement terminates results in damage to his copartners, they have a lawful claim against him for the amount of the damage. Under extraordinary conditions, specific performance of the contract might be decreed, i. e., the partner would not be allowed to withdraw.

Withdrawal does not relieve a partner from liability for partnership debts incurred while he was a member of the firm. Any creditors not paid by the firm may hold the withdrawing partner liable for the debts. To be relieved from the liability on debts arising *after* his withdrawal, personal notice of withdrawal must be given to all the firms with which the partnership has been dealing; a published notice being considered sufficient for the parties not dealing with the firm until after withdrawal.

2. *Sale of a partner's interest or admission of a new partner.* When a partner, with the consent of his copartners, sells his interest in the firm to another, or when a new member is admitted to

the partnership, in the eyes of the law the old partnership has ceased to exist and a new one has taken its place.

3. *Limitations in the partnership agreement.* The agreement may specify the period for which the partnership is to exist. If it is a special partnership, the object it is to accomplish may be stated and the law considers the firm automatically dissolved as soon as that object is attained.

4. *Mutual consent of the partners.* Whether or not the partnership period is limited by the agreement, the partners may at any time rescind their contract by mutual consent.

5. *Misconduct, insanity, death, assignment, or bankruptcy of a partner.* The happening of any of these contingencies effects a dissolution. By misconduct may be understood a member's failure to pay the agreed contribution of capital, failure to perform his duties, his acting in bad faith toward his copartners, etc.

6. *Illegal object.* A partnership entered into for the pursuit of an object which later becomes illegal is automatically dissolved.

7. *War between nations of which partners are citizens.* This dissolves the partnership, though such dissolution may be more in the nature of a suspension, inasmuch as the relation may be resumed upon cessation of hostilities.

8. *Bankruptcy of the firm.* This results in the firm's assets being sold to satisfy the claims of its creditors and the firm as such ceases to exist.

9. *Sale or transfer.* A firm may sell out to another firm or change its form of organization to that of a corporation. The old firm, therefore, no longer exists.

Problems Incident to Dissolution.—It is purposed to consider some of the problems involved in winding up the affairs of a partnership. From the schedule of causes of dissolution given above, it will be seen that a firm may be either solvent or insolvent at dissolution. The three statements sometimes set up in the case of insolvency—the Statement of Affairs, the Deficiency Account, and the Realization and Liquidation Statement—will not be explained here but results obtained through them will be taken into account. These statements are seldom met in practice and are

not standardized either as to form or content. A treatment of them will be found in the second volume of this series.

Partnership Provisions Covering Liquidation.—Because of the certainty of final dissolution, it is not unusual for the partnership agreement to make definite regulations concerning the method of liquidation. The appointment of one of the members as liquidating partner, the manner of distributing the proceeds from liquidation whether by instalments or otherwise, the manner of paying the liquidator for his services—all these contingencies should be provided for.

Where dissolution is forced by the death of one of the partners, to determine the interest of his heirs it is necessary to take inventory and make appraisal of the firm's assets. To avoid this inconvenience to the business, provision is sometimes made in the agreement that the remaining partners shall continue the business until the end of the regular fiscal period. The deceased partner's share in the profits for the current period up to the date of his death is determined by prorating the year's profit over the period in which the deceased had an interest. The method of calculating the firm's goodwill is usually provided for in the partnership agreement so that the estate of the deceased partner will share in it also. Usually interest is allowed the estate of the deceased partner from the date of his death until the settlement of his share.

Partners' Rights and Procedure During Liquidation.—When dissolution is accompanied by liquidation, as happens in many instances, all the partners have an equal right to share in the work of liquidation. Since the work usually does not require the time of all, a customary procedure is to appoint one member—or an outsider—as the liquidator. Notice of the dissolution, in which the name of the liquidator is given, is published in the leading newspapers. If liquidation is necessary because of the death of a partner, great responsibility rests upon the liquidator. He must act in strict good faith and endeavor to realize the best price possible for the assets of the firm in the interest of the deceased partner's estate. A similar responsibility rests upon him when liquidation is carried on in the interest of absent members.

The expenses and losses incident to liquidation must be borne by all in the profit and loss ratio. The liquidator may be paid either by means of a commission on the sums realized or by a salary. If the liquidator is a partner, settlement may take place privately between the partners, but usually his commission or salary is charged to the firm's liquidation expenses.

Liquidation may proceed by sale of the assets in regular order and may even permit the purchase of additional goods where necessary to fulfil existing contracts or to complete partly manufactured goods, or where stock on hand can be disposed of to better advantage by the addition of side lines or specialties.

Distribution of Proceeds.—Upon the realization of the assets, application of the proceeds must be made in the following order: First, the claims of outside creditors must be met in full or by compromise where not fully recognized. Second, the claims of the partners on account of loans or advances made to the firm must be satisfied. Third, the partners share in the remainder, by first taking out their respective capital contributions and then, if there is a balance, by sharing it in their profit and loss ratios. If there is a loss, this must be shared in the profit and loss ratio before withdrawal of any capital contributions. The remainder, if any, is divided among the partners in the ratio of their capitals as diminished by the loss. Whether the net assets are either more or less than the total amount of the capitals, the difference is shared in the profit and loss ratio, and what remains is shared in the adjusted capital ratio. If a careful accounting is made of the profit or loss at the time of the sale of each piece of property and these profits and losses together with the dissolution expenses are summarized and distributed to the partners' capital accounts, the balances of those accounts will, of course, show the claims of the various partners on the net assets of the business after all assets have been converted into cash and all liabilities paid.

Instead of a complete liquidation of the firm's assets, certain of the assets may, by mutual consent, be taken over by each partner at agreed values and applied toward the satisfaction of his capital and loan interests. Such use of assets is spoken of as a *conversion* to that particular purpose. It must be distinctly understood that

this is not a right which any partner can demand, but only a privilege granted by the mutual agreement of the partners. Any partner can demand that all the assets be sold and that the proceeds be applied in satisfaction of the interests concerned.

Sharing Losses.—In the case of insolvency, the partners are compelled to share the losses in the profit and loss ratio, not in capital ratio, and these losses are chargeable against their capital accounts. If the capital account of any of the partners is not large enough to satisfy his share in the losses, a deficit in that partner's interest results, which is represented by the debit balance in his capital account. This shows the amount which he must contribute to the firm in order that all claims may be satisfied. The rule that profits and losses in liquidation cannot be shared in the same ratio as capitals, unless this ratio is also the profit and loss ratio, is responsible for the fact that upon dissolution one or more partners may have to make additional contributions, while others may not be obliged to do so. This duty of contributing to make up a deficit is inherent in the partnership relation and can be enforced by the copartners.

A few illustrations will set forth the main problems in connection with the liquidation of partners' capitals.

1. Sharing Losses Equally.—

BALANCE SHEET OF A, B & C

Cash	$10,000.00	Liabilities	$10,000.00
Other Assets	60,000.00	A, Capital	15,000.00
		B, Capital	20,000.00
		C, Capital	25,000.00
	$70,000.00		$70,000.00

A, B, and C share profits and losses equally.

The above balance sheet shows, in summary form, the condition of the firm previous to liquidation, and also indicates the shares of the partners in the net assets as on that date, i. e., the partners share in the net assets in the ratio, 15 to 20 to 25 or 3 to 4 to 5. Dissolution becomes necessary and in the course of liquidation the expenses and losses incurred amount to $15,000. After the net loss of $15,000 is divided equally among the partners, the capitals

will amount to, A $10,000, B $15,000, and C $20,000. The result is that the capital ratio has changed from 3 to 4 to 5 to 10 to 15 to 20, or 2 to 3 to 4, and the net assets of $45,000 are to be shared in this new ratio.

2. Capital Deficit.—

BALANCE SHEET OF JONES & SMITH

Cash	$10,000.00	Jones, Capital	$20,000.00
Losses in Liquidation....	15,000.00	Smith, Capital	5,000.00
	$25,000.00		$25,000.00

Jones and Smith share profits and losses equally.

The above balance sheet shows the condition of the firm after liquidation. It is necessary, first, to distribute the liquidation losses among the partners, after which they share in the net assets according to capital ratios. Accordingly, each capital account is debited with an equal share in the loss of $15,000, after which Jones' capital is $12,500 and Smith's account shows a debit balance of $2,500. This means that Jones not only gets the entire cash of $10,000, but Smith must contribute $2,500 to the firm and this also goes to Jones.

3. Personal Insolvency of One Partner.—

BALANCE SHEET OF SMITH, JONES & GREEN

Cash	$16,000.00	Smith, Capital	$15,000.00
Jones, Capital	9,000.00	Green, Capital	10,000.00
	$25,000.00		$25,000.00

Smith and Jones each have a 2/5 share, and Green a 1/5 share in profits and losses.

The above balance sheet shows the financial condition of the firm after taking into consideration the losses incident to liquidation. From this it is seen that Jones owes the business $9,000. Assume that he is personally insolvent and cannot contribute the share due from him. The net assets available for distribution consist of $16,000 in cash. Inasmuch as Jones' interest is entirely wiped out and a contribution is due from him which he cannot pay, the amount of that contribution is an additional loss to be

borne by the two remaining partners. Their respective shares in this loss are determined by their original profit and loss ratios, 2/5 and 1/5, so that as between themselves Smith must bear 2/3 of the loss or $6,000, and Green 1/3 or $3,000; after which Smith's capital and share in the net assets is $9,000, and Green's $7,000.

Where a partner, in his private capacity, and the firm of which he is a member are both bankrupt, his personal creditors have first claim on his personal estate and the firm's creditors on the assets of the firm.

Distribution by Instalments.—Where the liquidation is of long duration, the partners may desire to receive what is due them by instalments rather than wait to receive their respective shares in one amount upon the ultimate conclusion of the liquidation. Where the capital ratio differs from the profit and loss ratio, it is difficult to determine the proper ratio in which the instalments should be paid, due to the fact that total expenses and losses for the entire liquidation have not yet been determined at the time of any instalment distribution. Consequently, it is impossible to tell what the ultimate ratios will be in which the partners are to share the net assets. As the payment of instalments on an arbitrary basis might result ultimately in an overpayment of some partners and an underpayment of others, the only safe method of handling the situation is to pay the first instalments to those partners whose capital ratios are in excess of their profit and loss ratios until their capitals are reduced to the point where the capital ratios of all the partners are the same as their profit and loss ratios. As soon as this point is reached, the proceeds of the assets may be distributed to the partners on the basis of their profit and loss ratios, because these are now identical with their capital ratios. A more complete treatment of this problem will be found in the second volume of this series.

Treatment of Goodwill upon Liquidation by Sale.—When dissolution is brought about by the sale of the entire business, it may happen that the amount realized on the assets is smaller than their book value, and the difference must be treated as a loss in accordance with the principles previously stated. Similarly, where the assets are sold and the price realized is larger than their book

value, the excess constitutes a profit and must be distributed among the partners in profit and loss ratio. Usually such an excess is treated as a receipt on account of goodwill, and two standard methods of booking it are employed. When goodwill is mentioned in the sale contract and its value has been determined, it is brought on the books as an asset and transferred immediately to the partners' accounts. Thus, if the value is $15,000 and the profit and loss ratio is 2/5 to A, 2/5 to B, and 1/5 to C, the entry is:

Goodwill	15,000.00	
A, Capital		6,000.00
B, Capital		6,000.00
C, Capital		3,000.00

Goodwill is now shown as an asset, and the entry closing it off is the same as for the sale of the other assets, viz., a debit to Cash and a credit to Goodwill.

On the other hand, when goodwill is not specified as such in the sale contract, but the amount realized on the sale of the assets is larger than their book values, this excess may be credited to an account called Profit on Sale of Goodwill. The balance of this account is closed out to the partners' accounts in profit-sharing ratios in the same way as above. The ultimate result is the same in either case; the first method is a little more complete since it shows the value of the asset, goodwill, previous to its sale.

The formal entries by which the sale of any business is recorded on its books, whether single proprietorship, partnership, or corporation, are treated in Chapter 26 under corporations.

Dissolution of Special Partnerships.—Upon the accomplishment of the purpose for which a special partnership was formed, it is usually dissolved, unless by subsequent contract it is agreed to continue it. One form of the special partnership, viz., the joint venture, presents some distinctive features which will next be considered. The joint venture is usually a side-line carried on in addition to a regular business. The record of the venture is not usually set up in a separate set of books but is carried on the regular business records of each partner. The distinctive accounting features arise because of this practice. After these are explained, an illustration will be given which will include the

winding up of the joint venture and the settlements with the partners.

Single and Joint Ventures.—In the early days of trade, the fitting out of cargoes of merchandise for sale in distant ports and the equipping of trading expeditions into unknown regions were not uncommon. Even today this method of seeking a market has its allurements, although the modern venture is more often concerned with a speculation in the stock, commodity, or real estate markets. The methods of accounting are, however, much the same. Adventures are of two kinds, single and joint. The single adventure is merely a special undertaking by a single proprietor and is treated in accounting as such, i. e., it is charged with all its costs and credited with its returns, the balance being either a profit or a loss. The joint venture is accounted for on the same principle, although the procedure may be much more complicated. A joint venture account may be defined as the record of "commercial transactions of a particular kind, usually of a temporary nature, entered into jointly by several parties who combine together for the purpose, contribute the capital and the services, as may be arranged, and agree to share the losses or profits in certain proportions."

Relations between Parties.—From the legal point of view, the combination under a joint venture is a special partnership, i. e., one entered into for the accomplishment of a special purpose, the several parties to it having control, as in a partnership, and sharing profits and losses either according to contract or, in its absence, equally. Usually, in a joint venture one of the parties or an outside agent is, by common consent, entrusted with the management of the entire enterprise.

Accounting for the Joint Venture.—If the undertaking is simple, one account for each such joint undertaking, viz., "Joint Venture," will suffice. This account will be carried on the records of the regular business of each party to the venture. The account is debited with the costs of the venture and credited with the returns from it.

If the enterprise is more complicated, it may be required to

set up a number of separate accounts, or even a separate set of records, but the summary or clearing account for these will still exhibit costs set over against returns. If the partners are all in the same city and have access to the records, one set of accounts is all that is necessary. Where the partners are in different places, each should keep a record of all transactions as reported by the manager of the venture. Since the manager reports all transactions to each of the parties, the "Joint Venture" accounts as kept by the different partners will all be the same.

The other accounts affected by the joint transactions will either be the same or reciprocal. Upon the inception of the venture, some of the partners having contributed cash, others merchandise, still other facilities, services, etc., the Joint Venture account is charged with all contributions and each partner is credited. If the venture is managed by one of the partners, instead of a credit to his own personal account, his cash or merchandise account will receive the credit for his contribution. If the managing partner desires to separate his investment in the joint venture from his investment in his regular business, he will set up a Joint Venture Investment account to which the amount of his contribution to the joint venture will be transferred from his regular capital account. Expenses incurred are charged to the joint account and credited to the partner paying them. All sales made and collected are credited to the joint account and charged to the partner retaining the money.

Interest Allowances and Charges.—Because some partners may have made larger contributions than others, the agreement may provide that interest be credited the partners on their contributions. On the other hand, it frequently happens that one or some of the partners have the use of the moneys received from joint sales until date of settlement of the venture, and the agreement may provide that interest shall be charged to those retaining the collected funds. This can be accomplished by charging the joint account and crediting the partners with interest from the dates of their contributions to the date of settlement, and by charging the partners retaining joint funds and crediting the joint account from the date when the funds come into their possession

until the settlement date. A salary or a commission may be allowed the managing partner or partners. This also is a charge to the joint account and a credit to the partner.

Distribution of Profits and Dissolution.—After all transactions have been completed and all charges and credits made, the joint account for each venture will show by its balance the net profit or loss. This is distributed among the partners in agreed ratio, or in equal ratio in the absence of agreement. After this is done, only the partners' accounts remain, some with debit and others with credit balances. The managing partner should collect the debit balances and remit to those with credit balances, thus making a complete settlement of the joint undertaking.

Should the fiscal period of any of the partners close during the term of the venture, conservatism would generally require that his own accounts do not show a profit on the venture sales made to date, on the theory that losses on the incomplete portion may wipe out any profits on the completed portion. This is because the joint undertaking is considered as a unit transaction and not as composed of numerous separate sales. The element of risk is always an important factor in undertakings of this sort. However, there might be circumstances under which the taking of at least a partial profit could be justified. Assuming that no profit is taken, the joint account becomes a balance sheet account at closing—asset or liability according as costs have been more or less than the sales as on the date of closing.

Joint Venture Accounts Illustrated.—An illustration will bring out the salient points in the above discussion:

Problem. A, B, and C enter a joint venture to Mexico, with C as manager. A and C contribute merchandise valued at $5,000 and $8,000 respectively, and B $11,000 cash for the purchase of additional merchandise. C is to receive 3% commission on sales. C pays freight, duty, and insurance of $890 from his own cash, and buys merchandise with B's contribution. He makes sales, according to reports sent by him to A and B, aggregating $30,000, and holds the amount in his possession one month till settlement. The investment period is six months. Interest at 6% is to be credited to partners on their original invest-

ments and is to be charged to C on the $30,000 held by him for one month.[1] A, B, and C share profits in the ratio of their original contributions. Settlement is made by C in cash.

The following entries show the record of the above transactions on B's and C's books, those on A's books paralleling B's and not, therefore, being shown.

1. At the beginning of the venture the record will be:

On B's books:

Joint Venture, A and C, to Mexico	24,000.00	
A		5,000.00
Cash		11,000.00
C		8,000.00
To set up the venture transaction.		
B, Capital	11,000.00	
Joint Venture, A and C, Investment		11,000.00
To show capital invested in joint venture.		
Joint Venture, A and C, to Mexico	890.00	
C		890.00
Freight, duty, etc., paid by C.		

The following entries will record these opening transactions on C's books:

Joint Venture, A and B, to Mexico	24,000.00	
A		5,000.00
B		11,000.00
Purchases		8,000.00
(As above.)		
C, Capital	8,000.00	
Joint Venture, A and B, Investment		8,000.00
(As above.)		
Joint Venture, A and B, to Mexico	890.00	
Cash		890.00
(As above.)		
C, Capital	890.00	
Joint Venture, A and B, Investment		890.00
Freight, duty, etc., paid by C.		

[1] Whatever agreement is made by the partners for interest adjustments governs. In practice, the usual procedure in a case of this kind would be to allow C interest on the $890 cash advanced by him for expenses from date of advance to date of settlement, and to charge him with interest on all moneys received by him from dates of the various sales to date of settlement. To simplify calculations, it is assumed in the illustration that C's use of funds received from sales during the first five months approximately compensates him for the $890 advanced by him.

2. On B's books at the time of settlement:

Joint Venture, A and C, to Mexico	1,620.00	
A		150.00
Interest Income, Joint Venture, A and C		330.00
C		1,140.00
6% interest on original contributions of each partner for six months; 3% commission to C on sales.		
C	30,150.00	
Joint Venture, A and C, to Mexico		30,150.00
6% interest charged C on $30,000 for one month; C charged with his collections from sales $30,000.		

On C's books these same transactions will give rise to the following entries:

Joint Venture, A and B, to Mexico	1,620.00	
A		150.00
B		330.00
Interest Income, Joint Venture, A and B		240.00
Commission Earned, Joint Venture, A and B		900.00
Cash	30,000.00	
Interest Cost	150.00	
Joint Venture, A and B, to Mexico		30,150.00

3. On the records of all the partners, the Joint Venture account shows a credit balance, i. e., a profit of $3,640, the distribution of which will be as follows:

On B's books:

Joint Venture, A and C, to Mexico	3,640.00	
A		758.33
Profit and Loss on Joint Venture, A and C		1,668.34
C		1,213.33
To distribute profits on the venture in the agreed ratio 5 to 11 to 8.		

On C's books:

Joint Venture, A and B, to Mexico	3,640.00	
A		758.33
B		1,668.34
Profit and Loss on Joint Venture, A and B		1,213.33

B's accounts now show a balance due A of $5,908.33; a claim against C for $18,906.67; his own share therefore being the difference, or $12,998.34. That this is the correct amount is seen by comparing it with the amount of B's Joint Venture, A and C, Investment account showing $11,000, his Interest Income Joint Venture, A and C, showing $330, and his Profit and Loss on Joint Venture, A and C, showing $1,668.34.

4. C now makes settlement in cash with his copartners for the respective amounts due them. The settlement transactions will appear as follows:

On B's books:

Cash	12,998.34	
C		12,998.34
Cash from C in settlement of Joint Venture.		
A	5,908.33	
C		5,908.33
C reports settlement with A.		

On C's books:

A	5,908.33	
B	12,998.34	
Cash		18,906.67
Settlement with A and B on Joint Venture.		

After these entries have been made on B's books, the joint venture with A and C will be shown completed. His books show his full share of the net profit on the venture of $1,998.54, reflected in the excess of cash received from C over cash given him for investment. At the end of B's regular fiscal period, the profit on the venture will ordinarily be shown separately on the statement of profit and loss after the item, Net Profit from Operations. It will be set up as follows:

Joint Venture, A and C, to Mexico (Schedule B-5)		$1,998.34
Gross Returns in cash from C, Managing Partner.	$12,998.34	
Original Investment	11,000.00	
Net Profit, as above...........................	$ 1,998.34	

Schedule B-5 should give a complete report of the venture, somewhat as follows:

JOINT VENTURE WITH A AND C TO MEXICO

Gross Returns as reported by C, Managing Partner			$30,000.00
Costs:			
Merchandise Purchases		$24,000.00	
Expenses		890.00	24,890.00
Gross Profit			$ 5,110.00
Commission to C			900.00
			$ 4,210.00
Add:			
Interest paid by C for use of funds after completion of venture			150.00
Net Profit to be distributed:			$ 4,360.00
A, Interest on Capital	$ 150.00		
Profit and loss share, 5/24 of $3,640	758.33	$ 908.33	
C, Interest on Capital	$ 240.00		
Profit and loss share, 8/24 of $3,640	1,213.33	1,453.33	
B, Interest on Capital	$ 330.00		
Profit and loss share, 11/24 of $3,640	1,668.34	1,998.34	$ 4,360.00

At the close of the period the account; Joint Venture, A and C, Investment, having served its purpose, is transferred back to B's regular capital account.

C's accounts show a balance due A of $5,908.33; due B, $12,998.34; the remainder of the joint income, $11,243.33 [$30,150 − ($5,908.33 + $12,998.34) = $11,243.33], being his own share.

After the same manner as B, C will make, at the close of his regular fiscal period, a summary of the joint venture, showing it in his statement of profit and loss somewhat as follows:

Joint Venture, A and B, to Mexico:		
Commission as Managing Partner	$ 900.00	
Share of Profit (see Schedule B-5)	1,453.33	$2,353.33
Gross Returns in cash	$11,243.33	
Original Investment	8,890.00	
Profit, as above	$ 2,353.33	

The student will note that the $150 interest paid by C for the $30,000 joint funds used by him for one month is not recorded

as an interest cost of the venture, but is charged to C's regular Interest Cost account because the funds must have been used for the conduct of his regular business.

The accounts on each partner's books with his copartners are not ordinary asset and liability accounts but are more of the nature of capital accounts and might be entitled "A, Contribution," "B, Contribution," etc. The records of the joint venture comprise a group of accounts which constitute a unit within themselves, showing the partnership relation existing among the several parties from the inception of the partnership to its liquidation and dissolution.

CHAPTER 25

THE CORPORATION—SOME LEGAL AND BUSINESS ASPECTS

Introduction.—The distinctive accounting features of the partnership and the rules of law and equity on which, for the most part, they rest have now been covered. It is intended next to treat the corporate form of business organization in a similar way. First, its legal and business characteristics and background will be explained—the manner of its organization, the rights of its owners, its working organization and management—and then the way in which the accounts must be set up and handled in order properly to reflect its legal status and requirements will be considered.

Definition.—The definition of a corporation, given by former Chief Justice Marshall as "an artificial being, invisible, intangible, and existing only in contemplation of the law," sets forth its fundamental characteristics, viz., artificial personality and creation by the law. Blackstone says: "A corporation is an artificial person created for preserving in perpetual succession certain rights which being conferred on natural persons only would fail in the process of time." Blackstone's definition lays particular emphasis on a characteristic not specifically mentioned by Marshall, that of perpetuity of succession. It is apparent that the corporation within the limits prescribed by statute has most of the attributes and powers of a person—it can sue and be sued, can hold and pass title to property, real and personal, can carry on business in its own name, is responsible to the extent of its entire property for the payment of its debts, etc.

Growth of the Corporate Form of Organization.—The corporate form of organization is being increasingly utilized for

the conduct of business of almost every kind. It offers a much more attractive field to the investor who desires to place his surplus funds in productive enterprises and share in their profits without having the burdens of active management or the risk of losing his private fortune to satisfy the claims of business creditors should the undertaking prove unsuccessful. Just as the partnership is an advance over the sole proprietorship in point of business organization, efficiency, and ability to cope with larger undertakings, so the corporation in some of its forms represents an advance over the partnership form of business organization. Its advantages and disadvantages in comparison with the partnership will be reviewed briefly.

Advantages.—Some of its advantages are:

1. Limited liability. In most cases only corporation property can be levied on to satisfy the claims of creditors; generally, the private fortunes of the individual stockholders cannot be touched.

2. Continued existence. The death, withdrawal, or bankruptcy of any of its members does not interfere with its existence. Its life may be terminated by voluntary dissolution, insolvency, expiration of charter life, forfeiture of charter to the state for misuse, non-use, or abuse of its privileges.

3. Transferability of its shares, and their use as collateral for private loans without injury to the credit of the corporation.

4. Larger capital. A partnership becomes unwieldy and inefficient if the number of partners becomes too large. The number of stockholders in a corporation is not limited and varies from one to many thousands—even hundreds of thousands—in the larger corporations. Accordingly, much more extensive fields of endeavor are open to the corporation because it can bring together and use advantageously the combined capitals of many persons, and it also may secure funds through the issue of bonds—a source of capital not available usually to any other form of business organization.

5. Centralized control. Its method of internal organization is such that one man can be made the responsible head.

Disadvantages.—The chief disadvantages of the corporation may be summarized thus:

1. Comparative absence of personal interest of the managing officer. This is largely a theoretical drawback, inasmuch as it is usually required that the managing officer be a stockholder.
2. As a creature of the state, the corporation is subject to state legislative control. It is taxable by the state and is required to make periodic reports.
3. Its credit is dependent on the amount of its net assets and not on the fortunes of its individual owners.
4. Corporations are sometimes restricted as to the character of their business. In some states certain lines of business cannot be carried on by corporations.
5. In some states it is illegal for corporations to hold stock in other corporations.

In spite of these and other disadvantages, most of which are not serious, the advantages of the corporate form of organization far surpass those of the sole proprietorship or partnership.

The General Corporation Statute.—Formerly, a corporation could be brought into existence only by a special act of the legislature. As this method proved cumbersome and was subject to much abuse, it gave place in all states to general corporation statutes or enabling acts whereby an application in due form and according to statutory provisions is all that is necessary for organizing a corporation. Though the statutes differ for each state, they are uniform in the main points. The method of formation under the New York statute will be explained.

Certificate of Incorporation—New York State.—The form of application for a charter to do business as a corporation is known as a "certificate of incorporation." The stock corporation law of the State of New York says:

> Three or more persons may become a stock corporation for any lawful business purpose or purposes except to do in this state any business for which a corporation may be formed under or pursuant to the banking law, the insurance law, the railroad law, or the transportation

corporations law, by making, subscribing, acknowledging and filing a certificate which shall be entitled and endorsed "Certificate of incorporation of ...., pursuant to article two of the stock corporation law" (the blank space being filled in with the name of the corporation) and which shall state:

1. The name of the proposed corporation.

2. The purpose or purposes for which it is to be formed.

3. Either the amount of the capital stock and the number and par value of the shares of which it is to consist, or, if the corporation is to issue shares without par value, the statements required by section twelve.

4. If the shares are to be classified, the number of shares to be included in each class and all of the designations, preferences, privileges and voting powers of the shares of each class, and the restrictions or qualifications thereof.

5. The city, village or town and the county in which the office of the corporation is to be located.

6. Its duration.

7. The number of its directors, or that the number of directors shall be not less than a stated minimum nor more than a stated maximum. In either case the number of directors shall be not less than three.

8. The names and post-office addresses of the directors until the first annual meeting of the stockholders, and if such address shall be in a city, the street and number or other particular description thereof. The number of the directors so named must be the number stated pursuant to the last preceding subdivision of this section if a definite number be stated, or, if an indefinite number be provided for, not less than the minimum number.

9. The name and post-office address of each subscriber of the certificate of incorporation, and a statement of the number of shares of stock which he agrees to take. If the address of any such subscriber shall be in a city, the street and number or other particular description thereof.

10. That all of the subscribers of the certificate are of full age, that at least two-thirds of them are citizens of the United States, and that at least one of them is a resident of the state of New York; that at least one of the persons named as a director is a citizen of the United States and a resident of the state of New York.

11. If meetings of the board of directors are to be held only within the state the certificate or by-laws must so provide.

Filing the Certificate—New York State.—The certificate of incorporation is usually made out in triplicate. The original must be filed and recorded in the office of the Secretary of State; the duplicate certified by the Secretary must be filed with the clerk of the county in which the principal business office is to be located; and the certified triplicate is retained by the corporation in its own files. The fee for filing the certificate with the Secretary of State is $40.

Organization Tax—New York State.—"Every stock corporation incorporated under any law of this state shall pay a tax of one-twentieth of one per centum upon the amount of the par value of all the shares with a par value which it is authorized to issue and a tax of five cents on each share without a par value which it is authorized to issue, and a like tax upon any subsequent increase thereof. The minimum tax shall not be less than $10.00."

Issuance of the Charter.—Upon compliance with all these requirements, including the payment of the necessary fees, the charter is issued bringing the corporation into being. The designated officer of the state has rather limited discretion in the issuing of charters, these being granted as a matter of routine procedure if everything appears regular and in order according to the general corporation statute. The charter is the approved certificate of incorporation. When approved it is of the nature of a contract between the state and the corporation, and, to a less extent, between the corporation and its owners, defining the specific rights and obligations of each party. The extent of the points covered by it is indicated by the details of its content as set forth above.

Initial Acts of Corporation.—When the corporation is ready to commence business, its first act is usually to call a meeting of the incorporators and directors for the purpose of adopting a set of by-laws—although this matter may be delegated to the board of directors. The by-laws usually provide for the internal organization and management of the corporation. The time and place of the stockholders' meeting and the method of giving notice of

such meetings; the manner of election of the board of directors, the frequency, time, and place of their meetings; the officers of the corporation, the manner of choosing them, their duties and responsibilities, the procedure for changing the by-laws; order of business at stockholders' meeting; the way in which stock shall be transferred,—all these and sometimes many other features are covered in the by-laws.

This first meeting also authorizes the issue of stock at or above par in exchange for cash, labor, or property.

State Control.—The outside control of the corporation is vested in the state. The state constitution, the general corporation law, the statutes relating to business organizations in general, and the specific contract between the corporation and state embodied in its charter or certificate of incorporation—these form the basis for state control and the limits within which the corporation may act as an authorized person. If the corporation does an interstate business, it is subject also to the regulations of the Interstate Commerce Commission and, if engaged in certain lines of activity, it may, as well, be subject to the rules and regulations of state supervising agencies, such as public utility commissions, etc.

Working Organization and Management.—The corporation's owners, that is, the stockholders, are the source of all authority and control. Unlike the partnership where control and voice in the management are usually shared equally by the partners regardless of any inequality in their investments, corporation ownership is evidenced by shares of stock and each share is given one vote. Thus each owner's authority and voting power are dependent upon the amount of his ownership of stock. He has, however, the right to delegate this power to another person by "power of attorney," and in this way it frequently happens that one stockholder exercises a power far beyond the amount of shares owned by him. Delegation of voting power frequently occurs when the stock is widely distributed geographically and is owned in small lots. In theory, the agent or attorney entrusted with the voting power of others is simply carrying out the will of his principal, the real owner of the stock.

Annual Election of Directors.—Because of the number of stockholders and because many of them are engaged in other pursuits, one of the characteristics of the corporate form of management is that the owners frequently do not have direct control of their enterprise. Accordingly, at regular times, usually annually, the stockholders elect directors to whom are delegated the general oversight and control of the business. The board of directors thus elected stands in the place of the stockholders during the period between the annual meetings at which it renders account of its management.

Officers.—The board of directors elects officers of the company—usually a president, vice-president, treasurer, and secretary—to undertake the active management of the business; or the directors may appoint a general manager or superintendent on whom rests the active management and who is the executive head of the corporation. Thus the chief characteristic of the working organization of the corporation is the delegation of authority to a responsible head. The accountability of the officers to the board of directors, and of the directors to the stockholders, has so far proved the most efficient method of conducting modern business.

The Owners.—The stockholders are the owners of the corporation. Ownership is divided into shares of uniform amount or value, each having the same rights, privileges, and duties as every other share of the same class. There may, however, be several classes of ownership, in which case the shares within each class are uniform but need not be so as compared with the shares of any other class. Ownership in any class is evidenced by certificates of stock of that class signed by certain designated officers who certify that the named person is the owner of a certain number of shares. A typical form of certificate is shown in Form 40, page 346.

All stock is common stock unless more than one kind or class is authorized. In this case, the other class has some kind of a preference over the common and is designated as preferred stock. Such stock is usually preferred as to dividends or divisions of profits, which means that it is entitled to a stipulated rate or amount of dividends ahead of the common stock. In the event

of an insufficiency of profits for division to both classes, the preferred may receive its share while the common will get none. The preference of stock as to dividends may be cumulative or non-cumulative. In the case of cumulative preferred stock, a dividend not declared and paid one period accumulates and becomes a prior claim which must be met before the common may receive any. Thus, a 7% cumulative preferred stock on which no dividends have been declared for, say, three years will be entitled to receive a dividend of 21% before the common stock may receive any share of the profits. The preference of non-cumulative preferred stock lapses at the end of each year. There are several other ways in which stock may be preferred. A full treatment of these features will be found in Chapter 21 of Kester, *Advanced Accounting*.

Voice of the owners in management is effected through the voting of their stock at the annual or other meetings of stockholders. All stock is entitled to a vote unless specifically provided otherwise. Preferred stock is sometimes made non-voting, and recently in some states authorization has been given for the issuance of two classes—e. g., class A and class B—of common stock which are identical in all respects excepting that one has a vote and the other has not. In this way, a comparatively small amount of stock may sometimes carry with it a control of the management of the corporation. Excepting for these specific denials of right to vote, the stockholders of a corporation have three basic rights which follow their ownership: (1) the right to share in management by means of their vote; (2) the right to share in profits when distributed; and (3) the right to a share in the net assets of the corporation upon its dissolution.

Stockholders of each class of stock share in profits belonging to that class in the same ratio as their stock holdings in that class. In other words, each share of stock receives the same share of profits as every other share within that class. This is also true of the share of the net assets attaching to each share of stock upon dissolution. Such a distribution of the net assets is called a liquidating dividend. In the corporation, therefore, the sharing of profits is always in the same ratio as capital investments of the owner in each class of stock.

The Showing of Proprietorship.—The chief difference, from an accounting viewpoint, between the corporate form and other forms of business organization is in the showing of proprietorship. Vested proprietorship in a sole-owner or partnership business is carried under the title of the different owners' capital accounts, and credit is extended by the public to such owners, not on the basis of what the particular business is worth, but on the reputation of the owners and what they are known to be worth outside the business as well as in the business. On the other hand, the law has relieved the owners of a corporation of individual liability for the debts of the corporation. Excepting in a few states and in some special kinds of corporations such as banking, for example, only the corporate property can be held liable for the satisfaction of creditors' claims. For their protection, the corporation is not allowed to impair its capital stock by the payment of any portion of it in dividends to the owners or to change the amount of its capital stock without special authority. The outstanding capital stock, in theory, represents to the prospective creditor the minimum value of the net assets of the corporation and indicates the amount by which the gross assets may shrink in value and there still be sufficient to meet in full the claims of creditors. Accordingly, the portion of the capital of a corporation represented by its capital stock is a fixed amount changeable only through the issue of additional shares, the redemption of shares, or the legal reduction of its capital stock. Therefore, the increments or decrements of proprietorship are usually shown in a separate account called Surplus. This account must always be read with the Capital Stock account to ascertain the current or present capital as distinguished from the original.

The Surplus account is sometimes divided and shown under such titles as Profits, Reserves, Undivided Profits, Working Capital, etc. To ascertain full proprietorship or net worth, all such accounts must be included.

In the partnership, a record is kept in the general or private ledger of the capital invested by each partner or owner. In the corporation, for the reasons stated above, the owners' total capital investment cannot be added to or subtracted from once the entire authorized amount of capital stock has been issued. It is custom-

ary, therefore, to carry this capital investment in a single account entitled "Capital Stock" in the general ledger. The amount of this total belonging to each stockholder is carried in his individual account in a subsidiary ledger called the stock or stockholders ledger. Thus the Capital Stock account is a controlling account over this subsidiary ledger. Where there is more than one class of stock, a separate account is carried for each class, such as Capital Stock Preferred and Capital Stock Common, each of which controls its own subsidiary ledger.

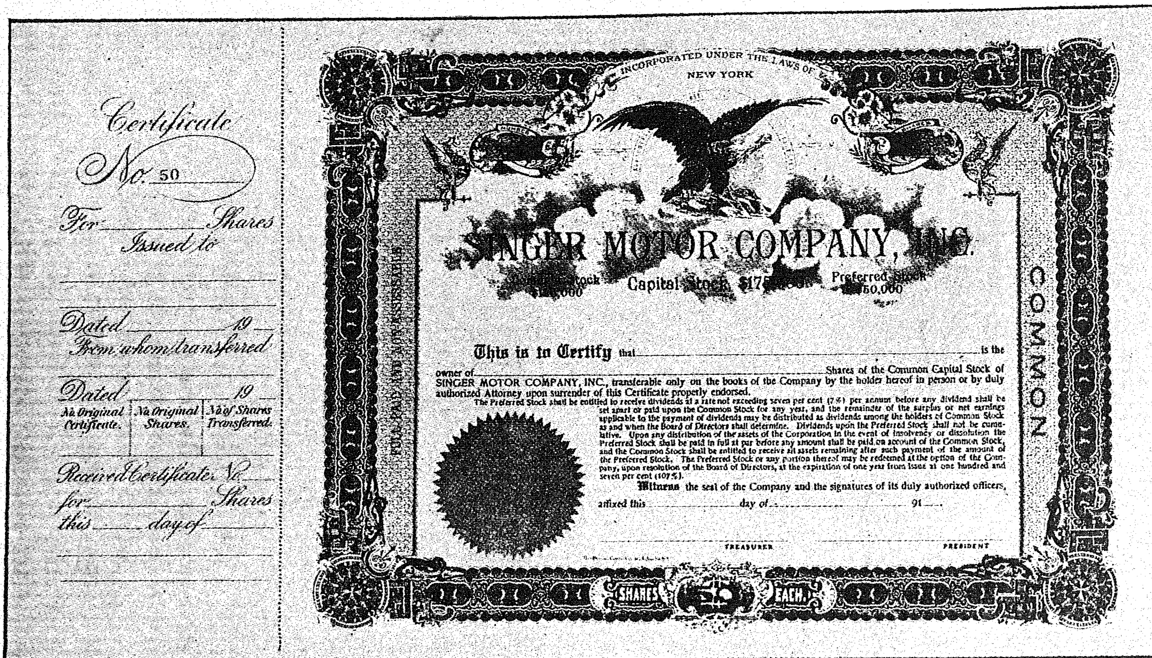
Records Peculiar to a Corporation.—In addition to the regular accounting records which all types of business keep, i. e., the journal and ledger records, the corporation is required by law to maintain certain kinds of distinctive records. For the most part, these are special records subsidiary to controlling or summary accounts carried on the general ledger. These relate to different phases of the stockholdings of individual owners. A memorandum record, known as the minute book, must also be kept.

The full procedure in securing the capital for a newly organized corporation may include the taking of subscriptions to the stock, the collection of such subscriptions in instalments or in total, and the issuance of the certificates of stock. Methods and records must also be provided for the transfer of ownership by means of a transfer of stock certificates. A brief explanation will be given of these various records.

The Subscription Book and Subscription Ledger.—Upon the proper filing and acceptance of the certificate of incorporation, authority is given the incorporators to secure subscriptions to the capital stock. Subscription books or blanks may then be opened, which usually contain a form of agreement somewhat as follows:

> We, the undersigned, do hereby subscribe for and agree to take the number of shares of the capital stock of the Blank Company, par value .... set opposite our names and pay for the same, ... per centum down, the remainder subject to the call of the board of directors.

Where the number of subscribers is large and especially if record must be made of payment by instalments, a subscription


Certificate No. 50

For ______ Shares
Issued to

Dated ______ 19__
From whom transferred

Dated ______ 19__

No. Original Certificate.	No. Original Shares.	No. of Shares Transferred.

Received Certificate No. ____
for ______ Shares
this ____ day of ______

INCORPORATED UNDER THE LAWS OF NEW YORK

SINGER MOTOR COMPANY, INC.

Capital Stock $175,000   Preferred Stock $50,000

COMMON

FULL PAID AND NON-ASSESSABLE

This is to Certify that ______________________ is the owner of ______________________ Shares of the Common Capital Stock of SINGER MOTOR COMPANY, INC., transferable only on the books of the Company by the holder hereof in person or by duly authorized Attorney upon surrender of this Certificate properly endorsed.

The Preferred Stock shall be entitled to receive dividends at a rate not exceeding seven per cent (7%) per annum before any dividend shall be set apart or paid upon the Common Stock for any year, and the remainder of the surplus or net earnings applicable to the payment of dividends may be distributed as dividends among the holders of Common Stock as and when the Board of Directors shall determine. Dividends upon the Preferred Stock shall not be cumulative. Upon any distribution of the assets of the Corporation in the event of insolvency or dissolution the Preferred Stock shall be paid in full at par before any amount shall be paid on account of the Common Stock, and the Common Stock shall be entitled to receive all assets remaining after such payment of the amount of the Preferred Stock. The Preferred Stock or any portion thereof may be redeemed at the option of the Company, upon resolution of the Board of Directors, at the expiration of one year from issue at one hundred and seven per cent (107%).

Witness the seal of the Company and the signatures of its duly authorized officers, affixed this ______ day of ______ 91__.

TREASURER   PRESIDENT

SHARES   EACH.

Form 40. Stock Certificate

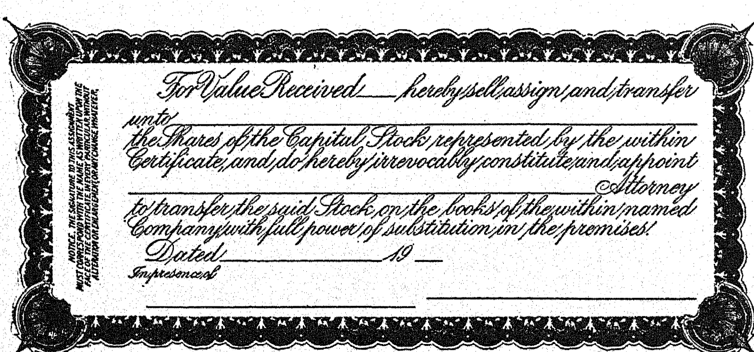
John G. Morse, 250 Washington St., Newark, N.J.													
DATE OF TRANSFER		TO WHOM SHARES ARE TRANSFERRED	CERTIFICATE NUMBERS		NUMBER OF SHARES	DATE OF TRANSFER		FROM WHOM SHARES WERE TRANSFERRED	AMOUNT PAID ON SHARES		CERTIFICATE NUMBERS	NUMBER OF SHARES	
			Surrendered	Reissued									
Mar.	13	James Clark	15	70	10	Jan.	10	Original Issue			15	90	
July	15	Russell Marshall	70	145	40	Mar.	25	F. N. Gleason			85	75	
July	31	Austen Ferguson	145		40	Aug.	1	E. M. Spencer			150	35	
Dec.	3	H. L. Wilson	85	175	70	Aug.	15	John Sparrow			160	50	
Dec.	16	Gordon N. Mott	175 165	231	105	Sept.	2	C. W. Horton			165	100	
Dec.	31	Balance			180	Oct.	5	Fuller F. Craig			42	45	
					395							395	
						1930							
						Jan.	2					180	

Form 41. Stock Ledger

ledger or instalment book is used. This ledger has no set form, but usually carries columns showing when the calls are to be made, when actually made, when paid, and the balance still due. A controlling account called "Subscribers" is carried on the general ledger, with a special column in the cash book to gather the totals for posting.

The Stock Certificate Book and Stock Ledger.—A subscriber is, as such, a stockholder in the corporation even though his stock certificate may not yet have been issued to him. The stock certificate is merely evidence of ownership. It is usually issued from a book with perforated leaves similar to a check book, with stub to carry the essential data of the certificate. A typical form of stock certificate is shown in Form 40. Directly from this stub, or through the medium of a stock journal, postings are made to the individual accounts in the stock ledger. This ledger which, in turn, is controlled by the Capital Stock account or accounts on the general ledger, carries the detailed information as to the number of shares issued, shares canceled, and balances held by each owner. A common form of stock ledger is shown in Form 41.

The Stock Transfer Book.—To transfer ownership in a corporation from one person to another, a form of assignment of interest is carried on the reverse side of every certificate of stock. A common form of assignment is shown in Form 42. It is customary to indorse the assignment in blank, i. e., without filling in the name of the new owner, who then may, in turn, transfer the


NOTICE. THE SIGNATURE TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE, IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT, OR ANY CHANGE WHATEVER.

For Value Received ______ hereby sell, assign, and transfer unto ______ the Shares of the Capital Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint ______ Attorney to transfer the said Stock on the books of the within named Company with full power of substitution in the premises.

Dated ______ 19__

In presence of

______ ______

Form 42. Assignment Form on Back of Stock Certificate

certificate to another without the necessity of filling out another assignment form. The final holder of the indorsed certificate sends it in to the issuing corporation with the request that a new certificate be issued in his name. When this is done, the new owner is recorded as a stockholder in the stock ledger and will thus be the recipient of dividends when declared and paid. In many large corporations—and it is a requirement of the New York Stock Exchange for all companies whose stock is listed—a trust company is usually appointed as transfer agent and another trust company as registrar of the stock. This is done to safeguard the issuance of stock so that there may never be any overissue, as might be the case if the matter were left to company officials who were recreant of their trust. Where both a transfer agent and registrar are employed, the stock certificates sent in for transfer are first routed to the registrar whose principal function is to see that there is not an overissue of stock. If the transfer requested is regular and in order, authorization is issued to the transfer agent to issue the new certificate and cancel the old. The stock ledger is kept by the transfer agent, who thus maintains an up-to-date record of stockholders. It is customary for the canceled stock certificate to be pasted to its stub in the stock certificate book. In this way the sum total of the shares issued as shown by the stubs with certificates outstanding should equal the total issued stock, which should agree with the Capital Stock account on the general ledger when it is handled as shown in the next chapter.

The Minute Book.—To preserve a record of the meetings of the directors and stockholders, and the business transacted thereat, use is made of a minute book kept by the secretary. This book, as the source of authority for all the important acts and policies of the corporation, is a most important record. The record should be a complete history of the corporation from its organization through the entire period of its existence. Usually the first entries in this book, which is often a loose-leaf volume, are a copy of the corporation's charter and a copy of its by-laws. These are placed here to facilitate reference to them, as care must be exercised to see that the deliberations and acts of the directors and stockholders are in strict accord with their contractual obligations.

The actions recorded in the minute book are usually in the form of resolutions which are adopted or rejected by vote.

Other Records.—When the stock is sold on the instalment plan, formal receipt of the payment of each instalment is sometimes made by means of an "instalment scrip book," whose certificates or receipts are issued upon payment of each instalment. When full payment has been made, the instalment certificates are exchanged for the regular certificates of stock.

A dividend book for recording the payment of dividends is sometimes kept, though the need for such a record has been largely eliminated through the use of dividend checks.

CHAPTER 26

OPENING THE CORPORATION BOOKS

Corporation Accounting Records.—The method of recording the ordinary business transactions of a corporation is essentially the same as in the types of business organization previously discussed. The accounts and the accounting methods which are distinctive of the corporate form deal, with only a few exceptions, with the vested proprietorship accounts. These comprise the usual capital stock accounts, those arising out of transactions in the company's stock, and the Surplus account. In this chapter, consideration will be given to the various capital stock and related accounts arising out of the original issue of the stock. Surplus accounts will be treated in Chapter 30.

Proprietorship and Capital Stock.—As stated before, the members of a stock corporation have their ownership evidenced by certificates of stock. The proprietorship or net worth of a corporation, as of the single proprietorship and partnership, is the excess of its assets over its liabilities. This excess is shown in the books by two accounts or two groups of accounts, viz., the Capital Stock account—or accounts—which represents the amount of outstanding shares; and the Surplus account—subdivided and carried under other titles, if desirable—which represents the excess of the proprietorship over the amount of capital stock. Each stockholder's share in the corporation is determined by the number of shares he possesses.

Common and Preferred Stock.—There may be various classes of stock. If only one kind is authorized at the beginning, the subsequent creation of other kinds requires an amendment of the charter. The usual classes of stock are common and preferred as explained in Chapter 25, where their main characteristics were described.

Both common and preferred stock may be classified as par value or no-par value stock. Par value stock is that which has a designated par value for each share. In some states the par value may be as low as 1¢ per share.

No-par value stock has no designated value for each share of stock. Its value is what it will bring when sold. The issue of no-par value stock is now authorized by most of the states. Very often in a corporation whose stock carries a designated par value, there is little real relationship between the actual value of the stock as indicated by the net assets of the corporation and its designated par value. The law requires that par value stock be carried on the books at its designated par. If such stock has been sold or exchanged for assets of a lesser value, there is always the temptation to inflate the value of the assets in order to maintain it at the par of the stock issued for them. This tendency is not met in the use of stock carrying no-par value. Such stock appears on the books at exactly the amount of the assets received in exchange for it. A purchaser of such stock, because of the fact that it carries no designated par value, is at once put on notice to investigate the values back of it.

No-par value stock may be either preferred or common. In the former instance, if the preference relates to the assets at the time of dissolution, each such share must state the amount of assets applicable to each share in case of liquidation of the corporation. This constitutes a preference claim, not over the creditors of the corporation, but only over the common stockholders.

Thus, it is seen that there may be different classes of ownership of a corporation, the owners of one class having some advantages over the owners of the other classes. As explained in Chapter 25, however, the rights and duties of the owners within each class are the same.

Opening the Books of a Corporation.—The opening entries of a corporation have to do with a correct treatment of capital stock, subscriptions, calls and instalments, payments by cash and by property, etc.

The charter to do business, granted a corporation by the state, gives it the right to sell shares of stock. These shares have

no value in themselves and are worth only what the corporation can exchange them for, either in cash or other assets. There is, therefore, no reason for making a record on the books of account as distinguished from the corporation's minute book, of the corporation's *right* to issue stock and of the amount of the stock which it has a right to issue. Until the stock has been paid or subscribed for, no formal entry need be made on the books of account. Of course, full record of all deliberations and resolutions as to procedure and policy up to the time of the actual sale of the stock is carried in the minute book, and a concise narrative statement of the organization of the corporation, its purposes, the authorized capital stock issue, the number of shares, the par value of each share, if par value stock, and so forth, should always precede the formal opening entries in the journal. This record and that in the minute book should give all the information of this sort needed. There is a too prevalent tendency among bookkeepers to make all sorts of memorandum entries on the books of account. A memorandum entry is an entry which has no financial significance and is made merely as a reminder that transactions of financial significance may arise from that source.

Before a corporation can secure its charter, it is necessary to make certain expenditures. These usually consist of fees paid to a lawyer for his services in assisting in drawing up the charter; fees for filing the certificate; the organization tax; the cost of the certificates of stock and stock records; and so forth. These expenditures must be met by the incorporators from their private funds but they are reimbursed from the funds received upon sale of the stock. It is, accordingly, customary in opening the books of a corporation to show first the sale of the stock before showing the expenditures for organization.

A number of different methods of opening the books are employed. The first of these does not make use of the memorandum entries referred to above, whereas the other two do use memorandum entries. The three methods will be illustrated by means of the problem given below. The entries are shown in journal form. It will be understood, of course, that those entries which involve cash will appear in the cash book only. All the other entries appear in the general journal.

PROBLEM 1. The Smith-Brown Company is incorporated with an authorized capital stock of $250,000, of which $150,000 is subscribed and paid for at par; the balance remains unissued for the present. The organization expenses are $1,000.

FIRST METHOD.

THE SMITH-BROWN COMPANY

A corporation organized under the State of New York, with an authorized capital stock of Two Hundred and Fifty Thousand dollars ($250,000), divided into Two Thousand Five Hundred (2,500) shares of the par value of One Hundred dollars ($100) each, with all powers necessary to carry on the business of manufacturing, selling, and distributing motors of all kinds.

Case 1. Where the subscription and payment are *not simultaneous*:

(a) Subscribers	150,000.00	
Capital Stock Subscriptions		150,000.00
To record subscriptions to the capital stock as follows:		
A............ ....shares		
B............ .... "		
C............ .... "		
Etc.		
(b) Cash	150,000.00	
Subscribers		150,000.00
To credit subscribers for the payment of their subscriptions.		
(c) Capital Stock Subscriptions..................	150,000.00	
Capital Stock		150,000.00
To record the issue of stock to all subscribers who have paid in full.		
(d) Organization Expense	1,000.00	
Cash		1,000.00
To record the payment of the costs of organizing the corporation.		

Entry (a) sets up the claim under subscription contracts against the subscribers as an asset of the corporation, and is offset by the proprietorship account, carried under the title "Capital

Stock Subscriptions," until payment has been made and the certificates of stock actually issued to the stockholders.

Entry (b) is self-explanatory.

Entry (c) shows the issue of the certificates and therefore transfers the proprietorship from Capital Stock Subscriptions to Capital Stock.

Entry (d) records the costs necessary to organization. The account, Organization Expense, is an asset account, i. e., it represents a capital expenditure. It is a quite general practice, however, to treat this account as a deferred charge, to be written off the books over a period of from three to five years.

Case 2. Where the subscription and payment are *simultaneous*:

(a) Cash	150,000.00	
Capital Stock		150,000.00
(b) Organization Expense	1,000.00	
Cash		1,000.00

In a small corporation where a cash investment constitutes the entire original capital, the entries shown in case 1 above are sometimes abbreviated as here indicated. In such a case there is often no formal subscription contract entered into and there is, therefore, no need to set up accounts with Subscribers and Capital Stock Subscriptions.

Second Method. This method makes use of the memorandum accounts, Unissued Capital Stock and Capital Stock Authorized. Omitting the narrative statement of organization, the explanatory matter after the various entries, and the organization expense entry, which are common to all methods, the other necessary entries are as follows:

(a) Unissued Capital Stock	250,000.00	
Capital Stock Authorized		250,000.00
(b) Subscribers	150,000.00	
Capital Stock Subscriptions		150,000.00
(c) Cash	150,000.00	
Subscribers		150,000.00
(d) Capital Stock Subscriptions	150,000.00	
Capital Stock		150,000.00
(e) Capital Stock Authorized	150,000.00	
Unissued Capital Stock		150,000.00

Entry (a) is a memorandum entry recording the amount of capital stock authorized by the corporation's charter. This entry has little or no financial significance. Not until stock is sold does the corporation have any real assets.

Entry (b) shows that, of the stock which was unissued under entry (a), $150,000 has been subscribed for, thus giving the corporation a legally enforcible claim—an asset—for that amount.

Entry (c) is self-explanatory.

Entry (d) shows the issue of the stock when the subscriptions are paid.

Entry (e) adjusts the memorandum entry (a), to show the present amount of authorized stock still unissued, viz., $100,000. Both accounts under (a) continue as memoranda only, and as they exactly offset each other, they will not appear on the balance sheet.

THIRD METHOD. This method also makes use of memorandum accounts before the sale of the stock. The difference between this and the second method should be noted. It will be seen that the credit of entry (a) is here Capital Stock instead of Capital Stock Authorized. This is theoretically incorrect because as yet the corporation has no proprietorship. The best that can be said for it is that the debit represents a contingent asset and the credit a contingent proprietorship item. The other entries are self-explanatory.

(a) Unissued Capital Stock	250,000.00	
Capital Stock Authorized		250,000.00
(b) Subscribers	150,000.00	
Subscriptions		150,000.00
(c) Cash	150,000.00	
Subscribers		150,000.00
(d) Subscriptions	150,000.00	
Unissued Capital Stock		150,000.00

Premium or Discount on Stock.—The law requires that when stock of par value is issued, the Capital Stock account must be carried always at par. When stock is sold at a premium or at a discount, it necessitates, therefore, the use of supplementary proprietorship accounts to make the proper record. In the State of New York, a corporation cannot sell its stock at a discount, but in states where this is allowed, the amount of such discounts

should be charged to a "Discount on Stock" or other similar account. Sometimes the charge is made to "Organization Expense." The use of Organization Expense account for this purpose is contrary to the principle that the account title should show the exact nature of the items recorded under it. It is misleading and sometimes reprehensible. A full discussion of this matter is given in Kester, *Advanced Accounting*.

When stock is sold above par, the amount of the premium is recorded in the account "Premium on Stock," which as usually handled constitutes a part of the permanent capital of the corporation. Premiums on stock sales should not be credited to Surplus account. The following illustration will show the kind of entries required:

PROBLEM 2. Of the $100,000 unissued stock of Problem 1, we will assume that $50,000 is later subscribed for at 98, and $50,000 at 102.

Entries to make the record according to the first method, Problem 1, are as follows:

(a) Covering stock subscribed for at a discount:

Subscribers	49,000.00	
Discount on Capital Stock........	1,000.00	
Capital Stock Subscriptions..		50,000.00

(b) For stock subscribed for at 102:

Subscribers	51,000.00	
Premium on Capital Stock...		1,000.00
Capital Stock Subscriptions..		50,000.00

Entries for payment of the subscription and issue of the stock follow the method of entry already shown on page 354. It will be observed that the Capital Stock Subscription and the Capital Stock accounts are always shown at par value.

It should be noted that the purchaser of stock of original issue at a discount is liable to creditors of the corporation, in the event that its assets should not be sufficient to meet all claims—as might be true in case of bankruptcy—to a further payment to the corporation of the amount of the discount. Thus it is seen that the creditors have a right to expect that the corporation has received full value for the stock it has issued.

Capital Stock on the Balance Sheet.—The net worth section of the balance sheet of a corporation will usually appear somewhat as follows for the capital stock items. Often, however, more detail is shown in connection with the surplus item. The student should note how full information is given concerning the capital stock.

(1) *Net Worth*

Capital Stock:			
Authorized	$250,000.00		
Unissued	100,000.00		
Issued and Outstanding		$150,000.00	
Premium on Capital Stock		5,000.00	
Surplus		60,000.00	
Total Net Worth			$215,000.00

Where the discount on stock has not been charged off against Surplus either because sufficient profits have not been reserved or because, although sufficient profits have been reserved, it is deemed desirable to build up a larger balance of Surplus before charging off the discount, the net worth section will appear as follows:

(2) *Net Worth*

Capital Stock:			
Authorized	$250,000.00		
Unissued	100,000.00		
Issued and Outstanding		$150,000.00	
Surplus		10,000.00	
Total		$160,000.00	
Discount on Capital Stock		15,000.00	
Total Net Worth			$145,000.00

Discount on capital stock should usually be shown as above, although one sometimes finds it listed among the assets on a balance sheet. Although not a desirable way of showing it, to one versed in accounting, this is not usually misleading unless it is set up under a title which does not indicate its true nature.

Instalments.—The subscription contract sometimes provides for payment by instalments. The corporation usually issues to all such subscribers a "call," i. e., a notice that an instalment

payment will come due at a given time. The subscriber is not considered delinquent and, therefore, suit cannot be brought to collect the claim until the call has been made and he has not responded. The accounts must, therefore, reflect the difference in status brought about by a call. This is accomplished by transferring the claim against the subscriber carried in Subscribers account to a new claim against him carried under Call account. The illustrations below show the accounts required and their handling.

PROBLEM 3. Assume that the $50,000 of stock subscribed for at 102 is to be paid for one-half in cash and the remainder in two equal instalments at the end of successive three-month periods.

For the one-half cash payment, the entry is as follows:

Cash	25,500.00	
Subscribers		25,500.00

At the end of the first three months, the record is:

Call No. 1........................	12,750.00	
Subscribers		12,750.00
To show the call issued.		
Cash	12,750.00	
Call No. 1..................		12,750.00
To record payment of the first call.		

Similar entries at the end of the second three months are:

Call No. 2........................	12,750.00	
Subscribers		12,750.00
Cash	12,750.00	
Call No. 2..................		12,750.00

If the call is not paid in full at balance sheet time, the debit balance in the "Call" accounts constitutes an asset, i. e., the amount of unpaid instalments due from subscribers. Upon full payment of all subscriptions, certificates of stock are issued and recorded as shown on page 354.

Partly Paid Stock.—It is not the usual practice to issue certificates of stock until the stock is fully paid for. However, particularly in small corporations where the stock is closely held, certificates are sometimes issued if all stockholders have paid the

same relative proportion of their subscriptions. Thus, where stock is sold on an instalment basis, the corporation may find that after a given portion has been collected it needs no further capital funds. The unpaid instalments are, therefore, never called for payment. Stock certificates may be issued and dividends declared, for all stockholders are on the same basis.

The showing of the capital stock on the balance sheet in such cases does not present any problem but, sometimes, a careful analysis must be made to interpret it correctly. The net worth section will show the stock as issued and outstanding at its par value. Among the assets, however, will be an account receivable, Subscribers or Unpaid Subscriptions, showing the amount still due. In the absence of any other stock account among the net worth items, it would thus be evident that the stock had been issued although not fully paid for.

The proper showing on the balance sheet of stock partly paid for but unissued must be handled differently. Assume that the authorized issue is $250,000, the amount fully paid and outstanding is $125,000, and that $75,000 has been subscribed for on which $50,000 has been paid. Such data should appear on the balance sheet somewhat as follows:

Net Worth

Capital Stock:			
Authorized	$250,000.00		
Unissued	125,000.00		
Issued and Outstanding		$125,000.00	
Capital Stock Subscriptions		75,000.00	
Total Net Worth			$200,000.00

This showing, read in connection with the asset account, Subscribers, with a balance of $25,000, will give a true picture of the status of the capital stock.

Subscribers and Call accounts should not be listed with the current assets unless early collection of them is intended, and then only under suitable titles which will differentiate them from other accounts receivable.

Entries for Common and Preferred Stock.—Where more than one kind of stock is issued, such as common and one or more

kinds of preferred, separate capital stock accounts—and usually other related accounts—should be kept for each class, as illustrated below:

PROBLEM 4. Assume that the stock of a corporation is $200,000 common and $50,000 preferred, and that $100,000 common and $50,000 preferred have been subscribed for. The entries necessary to record the subscription in accordance with the first method explained above, are:

Subscribers—Capital Stock Common.....	100,000.00	
Capital Stock Common, Subscriptions		100,000.00
Subscribers—Capital Stock Preferred....	50,000.00	
Capital Stock Preferred, Subscriptions		50,000.00

The other entries for payment of subscriptions and issue of stock are essentially the same as explained above, but the record of the transactions affecting common and preferred stock should always be kept distinct and separate.

Entries for No-Par Stock.—When a corporation issues no-par stock, the amount of proprietorship resulting from its sale is exactly what the stock brings and is so recorded; there is neither discount nor premium. Booking it is, therefore, simple. All of the entries shown above, except the Discount and Premium accounts, are used also for no-par value stock under the same conditions. The amount of capital secured from the sale of the stock should not be mixed with the accretions to capital from reserved profits or other sources. Such items constitute the Surplus just as in the case of stock of par value, and the requirements of good accounting practice that these amounts be kept separate from the capital stock are just as strict. This is necessary so that the records will clearly show that dividends have not encroached upon the capital. The terms of the no-par value stock laws of the various states are so lacking in uniformity that it is impossible to state generally what the legal requirements are. Under some recent legislation, it is possible to credit to Surplus account by suitable authorization of the board of directors, a portion of the funds received from the sale of no-par value stock, only the balance being entered in the Capital Stock

account. Similarly, by resolution of the board, sums may be subsequently transferred from Surplus to Capital Stock–No Par account. The legal requirements are very chaotic at the present time; hence, a sound conservative accounting practice should prevail rather than an unsound or uncertain practice which follows the letter of the law without due regard to the equities involved.

Since the value at which no-par stock is carried on the books bears no relation to the number of shares issued, it is customary to carry on the balance sheet information as to the number of shares outstanding. The net worth section of the balance sheet of a corporation issuing no-par stock should appear as follows:

Net Worth

Capital Stock—No-Par:			
Authorized	10,000 shares		
Unissued	3,000 "		
Issued and Outstanding.......	7,000 "	$369,465.00	
Surplus		125,479.00	
Total Net Worth................................			$494,944.00

Payment of Subscriptions by Property.—When payment of subscriptions is by property instead of by cash, the value at which such property shall be brought onto the books is entirely at the discretion of the corporation's directors, and unless fraud can be shown, their valuations are final. No difficulties are involved in recording such a payment; the paid properties are debited under suitable account titles, and the Subscribers account is credited. The following problem illustrates the change from a partnership to a corporation, at the same time showing how the payment of subscriptions by property must be treated.

Change from Partnership to Corporation.—

Problem 5. A and B, partners, incorporate as the American Baking Company. The authorized capitalization is $250,000. Each partner subscribes for an amount of stock equal to his interest in the partnership, and C, an outsider, subscribes for the remainder of the stock at par. The corporation purchases the assets and assumes the liabilities of the partnership, paying therefor with stock as above. C pays his subscription in cash. The balance sheet of the partnership on that date was as follows:

BALANCE SHEET OF A & B

Cash	$ 20,000.00	Accounts Payable	$ 45,000.00
Accounts Receivable	150,000.00	Mortgage Payable	80,000.00
Merchandise	50,000.00	A, Capital	125,000.00
Plant	130,000.00	B, Capital	100,000.00
	$350,000.00		$350,000.00

Make the opening entries for the new corporation and also close the books of the partnership.

1. The entries to open the corporation's books:

(a) Subscribers	250,000.00	
Capital Stock Subscriptions		250,000.00
To record subscriptions to the capital stock as follows:		
A 125,000		
B 100,000		
C 25,000		
(b) Cash	20,000.00	
Accounts Receivable	150,000.00	
Merchandise	50,000.00	
Plant	130,000.00	
A & B, Vendors		350,000.00
To record the purchase from A & B of their partnership assets.		
(c) A & B, Vendors	125,000.00	
Accounts Payable		45,000.00
Mortgage Payable		80,000.00
To record partial payment to A & B for their assets by the assumption of their liabilities.		
(d) A & B, Vendors	225,000.00	
Subscribers		225,000.00
To record full payment to A & B for the balance due them, by the cancellation of their subscription indebtedness.		
(e) Cash	25,000.00	
Subscribers		25,000.00
To record payment by C of his subscription contract.		
(f) Capital Stock Subscriptions	250,000.00	
Capital Stock		250,000.00
To record the issue of stock to all subscribers, who have paid in full.		

Entries (b), (c), and (d) are sometimes combined in the following compound entry:

Cash	20,000.00	
Accounts Receivable	150,000.00	
Merchandise	50,000.00	
Plant	130,000.00	
Accounts Payable		45,000.00
Mortgage Payable		80,000.00
Subscribers		225,000.00

Although this accomplishes the same result so far as the ultimate showing is concerned, it does not present the various steps of the transactions so clearly as the separate entries. "A & B, Vendors" account in entry (b) indicates the liability of the corporation to A & B, arising from the purchase of their partnership properties. Entries (c) and (d) show the manner in which A and B are paid for this purchase, with consequent cancellation of that liability.

2. The entries to close the books of the partnership of A & B are:

(a) American Baking Company	350,000.00	
Cash		20,000.00
Accounts Receivable		150,000.00
Merchandise		50,000.00
Plant		130,000.00
To charge the American Baking Company with the assets purchased under contract of (date).		
(b) Accounts Payable	45,000.00	
Mortgage Payable	80,000.00	
American Baking Company		125,000.00
To credit the American Baking Company under their purchase contract for the taking over of the firm's liabilities.		
(c) American Baking Company Stock	225,000.00	
American Baking Company		225,000.00
To credit the American Baking Company for the payment of the balance due by the issue of its stock at par to the firm.		
(d) A, Capital	125,000.00	
B, Capital	100,000.00	
American Baking Company Stock		225,000.00
To show the distribution of the stock.		

Where the stock is issued to each partner directly (instead of to the firm and then distributed to the vendors), sometimes the issue is not shown on the partnership books, entry (c) above carrying debits to the partners' capital accounts in place of the debit to American Baking Company Stock. Whether the actual transaction follows one course or the other, entries as shown above seem to meet either requirement.

The student should make sure that the effect of the entries under (a) and (b) is thoroughly understood. It may be further noted that if goodwill or shrinkage of values enters into the sale of a partnership, the necessary adjustments should be made in the partners' accounts before the sale takes place, after which the closing entries are as shown above.

CHAPTER 27

TREASURY STOCK, BONDS, AND SINKING FUND

Relation Between the Corporation and Its Owners.—It should be noted that the owners of a corporation are on a somewhat different basis in their relationships and activities to the business than are the owners of a partnership or single proprietorship business. The legal theory that the corporation is an entity, a person, separate and apart from its owners, necessitates a change in the status of accounts with owners as compared with similar accounts in the other types of organization. A charge against a stockholder as a customer of the corporation is on the same basis as a charge against any other customer. A stockholder may become a creditor of the corporation in exactly the same way as any other person. In a partnership, on the other hand, charges against a partner and credits to his account are looked upon as charges against and credits to his proprietary interest in the event of liquidation of the firm. This is not true in the case of a corporation, stockholders in such dealings being considered "outside" parties.

Current Record on Corporation Books.—After the corporation has been organized and the opening entries made on its books, the record of current transactions proceeds on practically the same basis as in all other types of business organization. Sales, purchases, cash receipts and disbursements, notes receivable and payable, and all the transactions arising out of them, are recorded currently in the same types of books and in the same manner as the similar transactions of a single proprietorship or a partnership.

While the record of current transactions is practically the same for all types of business organizations, there are some kinds of current transactions of a corporation which differ somewhat from those of the other types. They arise out of the nature of the corporation and are recorded under account titles peculiar

to the corporate form. Of these transactions, those dealing with treasury stock, redemption and conversion of preferred stock, bonds, and sinking fund will be discussed briefly.

Treasury Stock.—In some classes of enterprise and also under some methods of organizing and financing the corporation, no provision is made for the securing of a fund of working capital, all of the original capital being tied up in fixed assets—as a mine or some other plant. A similar condition is sometimes encountered even after a corporation has been operating for a number of years. Lack of business judgment and financial foresight sometimes brings about a condition in which the company has allowed an undue proportion of its current assets, and therefore its working capital, to become tied up in plant extensions.

In both such cases, a frequent method of raising working capital is for the stockholders to donate to the corporation a prorata portion of their holdings of stock to enable it to secure the needed working capital by selling the stock. When such stock comes back into the company's treasury, it is termed "treasury stock." Having once been issued and presumably fully paid for, it has this characteristic which does not attach to the original shares before their issue, viz., that it can be sold at a discount without the purchasers being liable to creditors, in case of bankruptcy, for the amount of the discount. Par value stock which is originally sold at a discount or which is being sold on the installment plan and has not, therefore, been paid for in full is subject to levy for the unpaid amount in the event of bankruptcy of the corporation. Thus, the man who buys a \$100 share of original stock for \$90, is subject to a \$10 levy in the event that the assets of the corporation are not sufficient to pay its debts.

Accordingly, in financing highly speculative ventures such as mining, oil, and other similar companies, it is customary to issue the entire capital stock of the company to the owner or owners of the mining or oil property taken over by the corporation as the basis for its operations. Inasmuch as the value of the properties taken over is not determinable, it is usually impossible to show that the stock issued for them does not represent their true value. Accordingly, such stock is legally fully paid stock and not subject to the liability for additional assessment which attaches

to stock sold at a discount. Working capital is provided through the donation of a portion of the capital stock to the treasury of the corporation, which is then in a position to sell to others the stock now fully paid and non-assessable. It is easier to find purchasers for this stock because it can be sold at whatever discount is necessary to dispose of it and carries with it no liability for future assessment.

Treasury stock may arise also through repurchase by the company. It may sometimes be desirable for a company to buy back some of its own stock. This is not allowed in all states but where allowed such stock repurchased becomes treasury stock.

The student should distinguish carefully between treasury stock and unissued stock.

Fully Paid Stock.—The basis on which rests the feature of the limited liability of the owner of corporate stock is that, since the creditor can look only to the corporate assets in satisfaction of his claims, he in turn must be assured that the corporation does possess or rather did originally possess *net* assets of an amount at least equal to the par value of the capital stock issued and outstanding. In other words, the stock issued must have been fully paid and thus the corporation must have received assets equal in value to the issued stock and these assets must always remain with the corporation—unless depleted through operating losses—and may never be redistributed to the owners so long as the corporation continues. An exception attaches to this statement in the case of redeemable preferred stock, which under certain conditions may be redeemed. Accordingly, if stock is originally sold at a discount, liability for a further contribution of an amount equal to the discount attaches to it.

When stock is paid for in cash, there is an exact measure or determination of the amount received for it. When paid for with other form of assets, such as real estate, mining property, machinery, goodwill, plant, etc., the responsibility for valuing it rests on the directors and officers, and unless fraud can be proven—usually a difficult task—their values stand. Stock is sometimes "watered" by issuing it for overvalued assets. Stock originally issued at a discount and so recorded, becomes fully paid when the Discount on Stock account is closed out against

Surplus, as this will make an equal amount of profits unavailable for dividend distribution and so will hold in the corporation an amount of assets equal to the original shortage in the payment for the stock.

Accounting for Treasury Stock.—The record of treasury stock transactions is not complicated. They are discussed under three heads as follows:

1. Record at Time of Acquisition. The acquisition of stock through donation will be explained first.

Assume that a company has issued all its capital stock, $1,000,000 in amount, for the acquisition of a mining property, and that the shareholders donate to the treasury $400,000 of the stock to provide working capital. This stock donation will be recorded on the books as follows:

Treasury Stock	400,000.00	
Donated Surplus		400,000.00

Like any other gift, this gift of stock in theory creates additional proprietorship and must, therefore, be recorded in a proprietorship account. The title, "Donated Surplus," is used to indicate the source of this additional capital. Capital arising from this source should never be recorded in the general Surplus account, largely because of its problematical value, but also because of the information which it gives concerning the financing of the company by making a separate record.

If a portion of the capital stock of a corporation is repurchased by the corporation—where this is legally allowable—such stock becomes treasury stock. Since the stock must usually be set up at its par value, any difference between this par value and the price paid for it should be charged to Surplus account, if repurchased at a premium, for the corporation by such repurchase has returned to the former owner the par value of his stock and also some portion of his equity in the surplus. If repurchased at a discount, Surplus account should not be credited, for the transaction has not created an earned profit which is available for dividends. The credit should be made to an account entitled "Surplus from Treasury Stock Acquired" or other similar title. When the treasury stock is sold, the profit or loss

arising—as compared with par value—will be entered in this same account which, when its net value is ultimately determined, may be closed to a Capital Surplus account—a surplus which is not ordinarily available for dividends but which should be treated as a part of the permanent capital of the corporation.

2. Record at Time of Sale. Assume that $250,000 of the treasury stock is sold at 50. Inasmuch as the stock was brought on the books at par, the portion sold must be taken off at the same figure. The 50% discount, instead of being recorded in a Capital Stock Discount account, will be recorded as a charge against the Donated Surplus, thus adjusting a portion of this donated surplus, recorded originally at par value, to its realizable value. The following entry records the sale and adjustment:

Cash	125,000.00	
Donated Surplus	125,000.00	
Treasury Stock		250,000.00

When the net realized value of Donated Surplus is finally determined after all treasury stock has been sold, it may be carried under its own title or closed off to Capital Surplus account.

The student should understand that the customary procedure of opening the subscription books, making the entries with subscribers for treasury stock subscriptions, payment in cash or by instalments, and finally, the issuance of the stock, may be the procedure followed in the sale of treasury stock just as in the sale of other stock. The net result will, however, be as shown by the above entry.

3. Record of Treasury Stock on the Balance Sheet. On the balance sheet, treasury stock is treated in the same way as unissued stock, namely, as a deduction item in the net worth section of the balance sheet. Using the above figures for illustration, the net worth section will appear as follows:

Capital Stock:			
Authorized	$1,000,000.00		
Treasury Stock	150,000.00		
Issued and Outstanding..................		$850,000.00	
Donated Surplus		275,000.00	
Total Net Worth..............................			$1,125,000.00

Redemption and Conversion of Preferred Stock.—Preferred stock is sometimes issued under an agreement permitting the company to call it for redemption at par or other stipulated amount on or after a given date or permitting the holder to turn it in for conversion into another class of stock, usually common. Best legal opinion seems to hold that such stock can be redeemed only to the extent of the amount of the accumulated surplus at such a time. This is so because the creditor has a right to that protection. His protection is lessened when any of the corporate assets are distributed to stockholders for redemption of their stockholdings. If surplus to an equal amount is retained, the protection which the creditor has a right to demand is not impaired, because the surplus profits belong to the owners and creditors have no claim on them in a going concern. If redemption takes place at any other value than par, an adjustment must be made in the accounts, usually through Surplus or other suitably earmarked surplus account.

When preferred stock is converted into common, when both classes have par values, any adjustment because of a difference between the par of the stock converted and of that issued in its place will be made as above through a suitably earmarked surplus or through the regular surplus account.

Bonded Debt.—In a corporation, the amount of owners' capital is shown by the net worth section of the balance sheet, being composed of the corporation's outstanding stock and profits left in the business. If the corporation is successful, it will probably desire to extend its activities. It may need to enlarge its plant; it may desire to tap other markets for the sale of its products; or it may desire to broaden its scope by taking on other products, thus entering new fields of activity. In every growing corporation, the time comes when it is faced with the necessity of securing additional capital. Three sources are available:

1. The sale of additional stock to present or new owners.
2. The reservation of profits in large amounts.
3. The borrowing of funds.

The owners may not desire to share any portion of their future profits with others; may not be able to contribute more capital themselves; and may be unwilling to forego sharing in current earnings by leaving the profits in the business. For these and other reasons, it may seem best to borrow funds.

Two kinds of borrowing are available, short and long term. Short-term borrowing from a commercial bank which will require early repayment manifestly will not meet the situation. Hence, long-term borrowing is resorted to, which will not mature for, say, ten, twenty, or even a hundred years, this being possible under the corporate form, the life of the corporation not being dependent on the natural lives of its owners. This kind of long-term borrowing is effected by means of a special kind of promissory notes called bonds. The debt so created is called bonded debt to distinguish it from floating or current debt. The funds secured, because they will be available for long-term use, are often spoken of as borrowed capital as distinguished from owners' capital. There is, of course, an essential difference, both legal and accounting, between the two, the one being a direct liability to outsiders, the other a proprietary interest.

Kinds of Bonds.—There are many different kinds of bonds, the chief basis of differentiation being the manner in which they are secured. Some bonds have specific collateral security—i.e., specific assets are pledged as security for the bonds,—others rest on the general credit of the issuing corporation. These latter are usually called debenture bonds or simply debentures. A mortgage on the real estate owned by the company frequently provides the security. Other kinds of property may, however, be pledged by the company to protect the bondholder. The kind of bond to be issued in a given case will depend upon the credit standing of the corporation, the availability of its assets for pledging, the condition of the money market for bonds at the time, and other similar considerations.

Bonds may also be classified, according to the manner of paying interest on them, as coupon bonds and registered bonds. Coupon bonds have attached to them, by means of perforations, a series of small coupons, numbered serially and dated, which

are promissory notes covering the periodic interest payments. At each interest period, the coupon for the interest due on that date is clipped off and is either sent in for redemption or deposited in the bank which thus makes collection, just as for checks. As a matter of practice, the corporation's banks of deposit in large centers are usually authorized to redeem the coupons upon presentation. Registered bonds, on the other hand, are not provided with coupons. The owners of such bonds are *registered* in a bond register kept at the company's office and the periodic interest checks are sent by the corporation to the owners listed in the register. Thus the purchaser of a bond held by another must send it in for registry in order to secure the interest on it directly from the corporation.

The bond itself, i.e., the document or form of promissory note, contains a summary of the contract under which the money is borrowed. The security pledged, if any, the rate of interest and when payable, the maturity of the bonds, manner of providing for payment as by a sinking fund, the appointment of a trustee to assure the lenders that the terms of the contract will be carried out—these and many other features are covered. The contract itself, of which the statements on the bonds are summaries, is held by the trustee for the bondholders.

Bonds Payable.—When a corporation borrows money on long-term notes or bonds, such notes or bonds are issued in uniform amounts, frequently in \$100, \$500, and \$1,000 denominations, making it possible for one of limited means to take advantage of the investment opportunity. Bond issues are floated in pretty much the same way as capital stock issues, being offered for subscription at a price depending both on the interest rate which the bonds bear and the prevailing interest rate at the time of their offering. Thus, if the bonds bear 5% interest and the market rate for bonds of the same general character is 6%, an investor will naturally not be willing to pay par for them and the company will, therefore, have to sell them at such a discount as will put the yield to the investor approximately on a 6% basis. The company, by receiving for its bonds an amount less than par value but by being required to pay interest on the par amount,

is thus paying higher than the nominal or agreed rate. There is thus a very definite relationship between the bond discount and the interest rate which the bonds bear.

Always some direct expense must be incurred in connection with bond issues. Lawyers' fees must be paid to insure that all legal matters have been handled properly; printing and engraving costs must be incurred in the printing of the bonds; and there are often fees to bankers for service. These are all charged to a Bond Expense account or to the Bond Discount or Premium account.

Accounting for Bond Transactions.—The accounting record of bond transactions is very similar to that of other liability transactions, and is shown under three heads as follows:

1. Sale of Bonds Payable. Assume that a $100,000 issue of bonds bearing 5% interest, payable semiannually, and maturing in twenty years, is sold at 90, and that bond expenses amount to $4,000. The record will be:

Cash	90,000.00	
Bond Discount and Expense......	10,000.00	
Bonds Payable		100,000.00
Bond Discount and Expense......	4,000.00	
Cash		4,000.00

Bonds payable are always set up at par, since that represents the liability which must be met at maturity of the issue.

2. Bond Interest Payment. At the close of the first six months, 2½% interest, or $2,500, will be paid to the holders of the bonds. Since the corporation will have to redeem its bonds at par, it has been deprived of the use of $10,000, represented by bond discount, because the issue was brought out at 5% and it has had to incur expenses of $4,000 in bringing out the issue. The $10,000 discount is, therefore, in the nature of a lump-sum interest cost incurred in advance—prepaid—and together with the expense should be spread equitably over the life of the bonds. Accordingly, at each of the 40 interest payments during the life of the issue, a pro-rata share of this prepaid interest and expense should be taken into account as bond interest. The distribution of bond discount and expenses over the interest payments made

during the life of a bond issue is termed "amortization" of the discount and expense. Scientifically, amortization is worked out on a compound interest basis, discussion and explanation of which is found in *Advanced Accounting*. Here, all we are concerned with is the principle involved and, for the sake of simplicity, the amortization is prorated evenly over the 40 interest periods, resulting in an additional interest charge of $350 each period. The record is therefore:

Bond Interest Expense.............	2,850.00	
Bond Discount and Expense...		350.00
Cash		2,500.00

In this way, the Bond Discount and Expense account is treated as an expense item of the periods covering the life of the bonds and at its close will be entirely closed out. At the end of each period, the balance in the account is carried forward to the next, being shown on the balance sheet in the section, Other Assets, or, better still, in a new class entitled "Deferred Charges to Operation." It is a prepaid expense but the period of its ultimate consumption is usually too long to justify its set-up on the balance sheet with that class.

3. Bond Interest Sold. Bonds bear a definite date of issue from which the periodic interest dates are computed. Bonds sold after the date of issue give the owner the right to receive all of the first interest payment, although he is entitled to interest only for the time the corporation has the use of his money. To adjust this situation, it is customary for the purchaser of such a bond to pay not only the price of the bond but also the interest which has accrued from its date of issue—or the last previous interest date—to the date of purchase. The company is thus reimbursed for its overpayment of interest to him at the next interest period. To illustrate, assume that a purchaser bought at par and accrued interest $10,000 of bonds bearing 6% interest on which the accrual amounted to $150, purchase having been made three months after date of issue. The cost is, therefore, $10,150. The entry to record this on the corporation's books is:

Cash	10,150.00	
Bond Interest Expense.....		150.00
Bonds Payable		10,000.00

At the time of the next regular interest payment, this credit in the Bond Interest Expense account will adjust the full payment to the correct amount of the expense applicable to the period.

4. Cancellation of the Bonds at Maturity. When the bonds come due and are paid, the record is the same as the cancellation of any other liability, viz.,

Bonds Payable	100,000.00	
Cash		100,000.00

Bond Premium.—Bonds are also often sold at a premium. As with discount, the premium is directly related to the interest rate which the bonds bear. At the time of the sale of bonds, the premium is brought on the books as a credit, which, together with the par value at which the bonds are booked, offsets the cash received from their sale. At the regular interest periods, the premium is amortized over the life of the bonds and so results in a lessening of the periodic bond interest charge. The expenses incurred with the issue of the bonds, when charged to the Bond Premium account, will decrease the amount to be amortized. The student should set up the entries to record the sale of bonds at a premium and the interest payment for such bonds.

Sinking Fund.—The sinking fund is a fund of liquid assets created by periodic sums, usually of equal amounts, set aside during the life of a bond issue or other liability to provide ready funds for the cancellation of the liability at maturity. This method is very commonly followed in public finance and is not infrequent in private corporations. It is not purposed here to explain the methods of determining what periodic sum is necessary to be set aside so that these principal sums and their interest accumulations will provide sufficient funds for the cancellation of the liability at maturity. Nor will the somewhat complicated problem of sinking fund investments in the hands of a trustee, and the expense and income arising therefrom, be discussed here. These and related problems are covered fully in *Advanced Accounting*. Only the creation of the fund and its final disposition are treated here, under two heads as follows:

1. Creation of the Fund. Assume that $1,000 cash is set aside at the end of each six months to provide for the retirement of the bonds at maturity. The entry every six months will be:

Sinking Fund	1,000.00	
Cash		1,000.00

2. Cancellation of the Bond Liability. The student will understand that the cash set aside periodically for the sinking fund will be invested in securities in order to accumulate an income, which usually accrues to the fund. The securities in the fund must be sold just before the maturity of the bond issue, in order to provide cash. It will be assumed that in this instance the securities in the fund have been sold, that the cash in the sinking fund at the time of maturity is $101,500, and that the bond issue to be retired is $100,000. The entries will be:

(a) Bonds Payable	100,000.00	
Sinking Fund		100,000.00
(b) Cash	1,500.00	
Sinking Fund		1,500.00

Entry (b) returns to the general cash the unused cash in the sinking fund. In case of a deficiency in the sinking fund, it will be necessary, of course, to draw on the general cash for the amount of the deficiency.

Sinking Fund Reserve.—It is often the policy of a corporation, which has to provide for the redemption of a bond issue, to reserve from the yearly profits a sum equal to the periodic payment into the sinking fund and the accumulations of the fund during that period. Such a policy prevents the distribution by dividends of all the current profits to stockholders, and insures that the increase in the assets represented by these profits will be held in the business and so provide each period an increased amount of assets for use in the business and ultimately, by conversion of the assets into cash, for the use of the sinking fund. The entries crediting the sinking fund reserve and showing its disposition at the maturity of the bonds are as follows:

(a) Surplus	1,000.00	
Sinking Fund Reserve.		1,000.00
(b) Sinking Fund Reserve......	100,000.00	
Surplus		100,000.00

The first entry shows the periodic reservation of profits. The second entry transfers back to Surplus the total profits so reserved during the life of the bonds. Upon the redemption of the debt, the Sinking Fund Reserve no longer serves the purpose for which it was created, and should be returned to Surplus where it becomes available for dividends. The redemption of the bond issue will usually deplete the current assets so that funds are not available for the payment of such a large extra dividend as would be possible out of the profits thus released. If a dividend is declared out of these profits, it is quite usual to pay it with stock, the entry for which is explained on page 430. The effect of such an entry is to capitalize this part of the surplus and so make it a permanent part of the capital.

CHAPTER 28

THE MANUFACTURING CORPORATION

Manufacturing.—In Chapter 21, where the forms of business organization are discussed, it is pointed out that from the standpoint of the broad general types of activities under which business is carried on, business organizations may be classified as trading, manufacturing, mining, service, etc. Discussion of accounting principles developed up to this point has related chiefly to the trading or mercantile type of business. A manufacturing or industrial enterprise involves some characteristic features which it is proposed to treat in this chapter.

A manufacturing business is one which takes a so-called raw material and, through fabrication by the application of labor, both human and machine, produces a new product. The merchant, as distinguished from the manufacturer, buys in finished form the product which he sells. This product has been made or manufactured by another type of business organization which, instead of selling its product to the ultimate consumer, distributes it to retail merchants, directly or through jobbers. The manufacturer, of course, has a sales problem just as does the merchant, but it is usually a different type of selling, in that sales are made in quantities instead of in small units as in the retail trade. The point of differentiation between the two is chiefly that the one makes the product which it sells, whereas the other buys it already made.

From the standpoint of accounting, the chief point of differentiation between merchandising and manufacturing is found in the cost of goods sold section of the profit and loss statement. For the mercantile organization, the item, Cost of Goods Sold, is computed by a combination of opening and closing inventories and purchases. The manufacturing concern inserts in place of the item, Purchases, the item, Cost of Goods Manufactured. So

far as the accounts are concerned, this is the basic point of difference between these two types of business organization.

It is to be noted that the problems of manufacture do not belong exclusively to the corporate form of ownership organization, but are found also under the partnership and sole proprietorship forms. Manufacturing is here discussed in connection with corporations chiefly because all large-scale manufacturing—and many small units, as well—is operated through the medium of the corporate form.

To differentiate further between the accounts of a merchant and those of a manufacturer, a brief survey will be given of the chief features of the manufacturing corporation from the standpoint of its problems of organization and management. In the first place, the manufacturer must provide himself with a plant and equipment. While frequently this can be leased, generally because of the specific requirements in each instance, it is extremely difficult to lease a plant exactly fitted to specific needs. Hence, usually additional capital must be provided, as compared with a merchandiser, which will be invested in land, buildings, machinery, tools, furniture and fixtures, power plant, and even sometimes railways and other transportation systems.

As pointed out above, instead of buying in finished form the product which he expects to sell, the manufacturer must provide himself with raw materials out of which to fabricate the product in its finished form. He is, therefore, faced with the problem of securing a source of supply for his raw materials and a warehouse or storeroom in which to house a quantity adequate for his manufacturing needs.

One of the most difficult problems ordinarily facing the manufacturer is the securing and maintaining of a labor force of skilled and unskilled workmen on whom he can depend. Very frequently, the location of his plant has an important bearing on this question. A plant located in a large city normally has a more accessible labor market on which to draw than one located in a small town. In the former case, the labor supply is more flexible in that as production slows off, the manufacturer will ordinarily feel freer to cut down his force than would be true in

the latter case, where the laborer thrown out of employment has little opportunity to seek employment elsewhere.

After he has furnished himself with a plant and has sought out raw material sources and labor markets, a manufacturer is faced with the further problem of organizing his factory. A proper departmentization must be made, a routine of production must be planned involving the use of machines and the continuous flow of work from one department to another, so that there will be the least waste motion and the effort expended will bring the greatest possible return. After the completion of the finished product, warehouses must be provided in which it may be stored until sold. The location of the factory in one place and the head office in another may sometimes further complicate the manufacturer's problem as compared with those of the merchandiser.

The Function of Accounting in Manufacturing.—The greater complexity of the problems of manufacturing as compared with those of merchandising indicate the relatively greater need for factual information as a basis for the formulation of business policies and proper supervision over their execution. It is the function of the accounting department to provide this factual information, so far as it relates to the internal affairs of the business. By making a record of what takes place, the accounts provide a basis on which future activities may be planned. The chief function of accounting is thus to make a record of the cost of manufacture.

Inasmuch as the manufacturing effort is directed wholly toward the production of a finished product, all of the costs of that effort must be borne by the product resulting from it. Stated otherwise, the cost of the finished product is the sum total of all of the costs of the manufacturing activities which have produced it. Thus, all of the costs of raw materials, of labor, and of those general expenses incident to manufacturing comprise the cost value of the finished product turned out.

A consideration of the methods of collection and distribution or allocation of these several costs to each unit of product is the field of what is called factory cost accounting. This field is a broad one and the problems encountered are quite complicated.

While the principles of cost accounting do not differ from the basic problems of accounting which have been developed previously, the application of those principles to the complex problems of the factory is, as just stated, usually treated as an entirely separate field of accounting, especially in those cases where a formal system of cost accounting has been established. Where that has not been done, the system of accounts which has previously been developed as applicable to a merchandising business may be broadened and expanded somewhat to make record of the additional activities of manufacturing. Such an informal cost system may serve well the purpose of determining the entire costs of manufacturing operations, although as a usual thing it does not provide the detailed information necessary for a determination of unit costs by means of a detailed distribution and allocation of manufacturing costs to each unit of product. It is purposed here to present only a brief survey of the subject.

The Elements of Manufacturing Costs.—The three elements which enter into the cost of a manufactured product have been indicated above. These are: (1) raw material, (2) labor, and (3) manufacturing expenses. In connection with the costs of manufacturing, some new terms are met which require definition. Among these may be mentioned direct and indirect costs, prime cost, factory overhead or burden, factory cost, and full cost. Direct costs are those which can be applied or distributed directly to a specific product or unit, while indirect costs are those which are shared in common by all of the product turned out. In the computation of unit costs, indirect cost must, therefore, be distributed or applied on some equitable basis to each unit produced. Thus the cost of light and heat is shared by all products turned out, and in the determination of a complete cost of each unit of such product, a basis must be found for allocating a fair portion of these costs to each unit. Direct costs are frequently termed prime costs. Under most systems of cost accounting, methods have been devised by means of which the raw material and direct labor costs can be applied directly to the product. Prime cost thus is usually considered as the sum of raw material and direct labor costs. The other costs, such as those connected

with the general operation and maintenance of the plant, including the cost of indirect or supervising labor, are variously termed manufacturing expense, burden, or overhead. The prime cost plus the overhead constitutes what is called factory or manufacturing cost. When to this cost are added the selling and administrative costs and the profit margin, the sum gives the basic selling price of the product. Full cost is this selling price minus the profit margin. In other words, it is the complete cost accumulated up to the point of delivering the sold product to the customer. It thus includes, in addition to factory overhead, a fair pro-rata share of all of the other costs of operating the business.

Raw Materials and Supplies Defined.—Raw materials comprise the material out of which the finished product is to be fashioned. The term is a relative one. Only a comparatively few plants use materials as taken from nature in crude state for the manufacture of their finished product. The crude natural commodities are the raw materials of one group of factories, the finished products of which become the raw materials of another group, which in turn provide in their finished products the raw materials of other groups, until finally the finished product of the last group of factories reaches the ultimate consumer. In all manufacturing there is also what may be termed auxiliary material. This material, such as screws, bolts, hinges, fastenings, trimmings and the like, is incorporated in the finished product usually without change of form or further manufacture. This, of course, also constitutes a part of the raw material of a given factory.

Supplies, on the other hand, may be distinguished from raw material in that, while they comprise a part of the material used in the manufacture of the product, it is almost impossible to determine the quantity used for each unit. Such items as paint, putty, etc., must usually be spread on some equitable basis over the product and are usually to be classed as supplies rather than materials and are to be accounted for as a part of the factory expenses. These supplies are to be differentiated from factory operating supplies such as fuel, oil, waste, sundry repair materials, etc., which do not comprise any part of the material cost of the product.

Accounting for Materials.—In accounting for the materials cost of the finished product, two methods, in the main, are used: (1) the method of the physical inventory, with which the student is already familiar; and (2) the method of the perpetual inventory which will be explained here. Under the physical inventory method, the raw materials on hand at the beginning of the period, plus the purchases during the period, comprise the total raw materials to be accounted for. A physical count is made of those left on hand, and the difference between total raw materials available for use, and those left on hand constitutes the cost of raw materials used in manufacture. This method usually secures a proper total cost of raw materials used in manufacture, but it does not provide a basis for determining the cost of such material which has gone into the different kinds of product, nor into each unit of such product. For this purpose, a careful systematizing of the accounting for raw materials costs must be developed.

A suitable accounting control over raw materials is best secured by means of a storeroom in charge of a stores-keeper and assistants. All raw materials purchased are placed in this storeroom and none are issued excepting upon duly authorized order, or requisition from the plant executive designated for this purpose. The order, or requisition, on the stores-keeper states the quantity of material needed and the specific purpose, or factory order number, for which it is to be used. This requisition, therefore, provides the data by means of which the cost of the raw materials for a specific product can be determined and it also can be used for determining the amount of raw materials left on hand. The raw materials, as drawn from the storeroom, are usually priced on a cost basis.

When the amount of withdrawals is subtracted from the cost of the materials charged into the storeroom, the difference or balance becomes a constant or perpetual inventory of the raw materials remaining in the storeroom. A raw materials account may, therefore, be set up and operated on almost the same basis as a cash account. This raw materials account is in the nature of a controlling account over the storeroom, which may for the purpose of securing additional detailed information relative to the various kinds and classes of raw materials, maintain what is called a stores ledger in which a separate account will be kept

of each class or kind of raw material. When the raw materials are delivered to the storeroom, the purchase invoices received from the vendor provide the basis for debits to these various stores ledger accounts and the requisitions issued and filled by the storeskeeper provide the basis for credits to these stores accounts. The summaries of purchases and requisitions provide the controlling figures for entry to the debit and credit respectively of the Raw Materials controlling account on the general ledger.

Labor Cost—Direct and Indirect.—The second component of the cost of manufacture is labor, which is divided into two classes, direct and indirect. Direct labor is that which can be allocated directly to the job or product worked on. The wages of workmen employed directly on the job usually constitute the direct labor cost. The wages of supervisors, foremen, departmental heads and general superintendent, and the wages of the various clerical staffs in the factory, comprise the indirect labor element. For the distribution of this latter element over the product, some equitable basis must be found. Direct labor is thus a prime cost, whereas indirect labor is considered one of the manufacturing expenses or overhead items.

Accounting for Direct Labor.—Accounting for total direct labor expended in the manufacture of the product is not difficult. It requires only the proper differentiation between direct and indirect labor. As with material, the determination of the direct labor applicable to each product, or unit of product, requires the employment of a system of labor accounting, which will provide a method for recording the time spent by the workmen on a particular unit or kind of product. A good many different methods for doing this are found in use. Sometimes, a timekeeper is employed whose function it is to keep track of and record in a time book the time spent by the workers on various classes and units of work. Sometimes a clock system is used whereby the worker punches in his entering time and his leaving time, this being recorded on a slip, or ticket, from which the bookkeeping department can determine the elapsed time spent on specific work. These, or some modifications of them, are typical systems in use.

The workmen's time card, clock record, or time book must show the order number or other designation by means of which the wage of the worker as computed from the elapsed time may be charged as a cost to that order number or specific piece of work. It is a basic principle of labor accounting that all of the time for which a worker is paid must be charged to some specific class of work, in order that the output of the factory may thus absorb all of the labor costs. The use of order numbers is, in certain types of manufacture, a convenient means for gathering all of the costs applicable to a specific piece of work.

It is apparent that these time cards or records can also be used as the basis for computing the amount of wages due each worker. From the labor tickets, therefore, what is known as the payroll is made up. This is merely a list of the names or numbers, or both, of the workmen showing the time employed during the payroll period, the rate of wages, and the computation of the total wage to each worker. Sometimes provision is made also for the signature of the workman's name to acknowledge receipt of payment. Sometimes a credit column is placed after the total wage column in which will be gathered any charges against the worker because of payments made for him by the company. These might include such items as union dues, hospital and sick benefit contributions, rent of company houses, insurance, merchandise bought from company store, etc., all of which deducted from his gross wage, gives the net wage due him for which he will receive payment in his pay envelope. Great care should be exercised in the filling of the pay envelopes and the issue of them to workmen to see that the payroll is not padded; that is, to see that a natural person is actually present and vouched for to receive the wages called for. Many different kinds of fraud are sometimes perpetrated through the payroll and only eternal vigilance will prevent it.

Distribution of Labor Charges.—The distribution of the labor charge to the product on which the labor was applied requires a proper organization of the records. As indicated above, the labor ticket itself, bearing the order number or other specific designation, provides the basis for the direct charge to

the kind of work or unit of product to which it was applied. The sum total of the payroll gives the amount to be charged to the payroll or direct labor account in the general ledger. If the one payroll sheet or form carries both direct and indirect labor, a distribution of these charges must be made to the various accounts on the ledger, such as Direct Labor, Factory Foremen's Salaries, Engineers' Salaries, Power Plant, Firemen's Wages, Office Salaries, Superintendent's Salary, etc. This can be accomplished by means of distribution columns, annexed to the payroll sheet itself. The totals of these columns will then be posted from the payroll sheet. Sometimes this distribution is made from the cash disbursements journal, or from a special form of purchase journal called the voucher register, which will be explained in Chapter 29. Sometimes a general Payroll account is carried on the general ledger and distribution of it to the various labor accounts mentioned above is made by means of a general journal entry, charging these various accounts and crediting Payroll account.

Manufacturing Expense, Overhead, Burden.—Record must be kept of all of the other costs of operating the factory. As explained previously, these are general or indirect costs which cannot be separated at the time of their incurrence into the portions applicable to each class or unit of the product. They are accumulated, therefore, in total under suitable information titles. Under a formal system of cost accounting, these are later distributed on some equitable basis to the kinds and units of product turned out.

While the account titles will differ in accordance with the need for specific information in each case, the following are typical titles of these manufacturing expenses, or overhead accounts:

Indirect Labor
Fuel
Power Plant Payroll
Power Plant Supplies
Power Plant Repairs and Upkeep
Factory Repairs
Sundry Factory Expenses
Machinery Repairs
Factory Building Maintenance and Repairs
Depreciation
Insurance
Taxes
Royalties
Etc.

These detailed expense accounts may be carried on the general ledger, or, if numerous, in a subsidiary factory expense ledger, which will be controlled by a Factory Expense account on the general ledger. This controlling account will, of course, be handled in accordance with the general principles previously explained.

Distribution of Overhead.—It is not the purpose to discuss this problem here but merely to point out what it is and to indicate some of the more usual bases employed in making the distribution. Where the output of the factory is confined to a few products, distribution is not so difficult as where many different kinds of product are turned out. To determine what part of any one of the factory expense items should be charged to one product and what to another is oftentimes a very difficult matter. Usually these expenses are distributed first to the various operating departments of the factory and then to the product turned out by each department. Thus, the rent cost may be distributed on the basis of the floor areas of each department; the building repairs and maintenance, on the same basis; light and heat on floor areas or cubic contents of each department; power, on the basis of actual consumption as shown by departmental meters; machinery repairs, on the basis of actual costs of such for each department or, if such are not obtainable, on the basis of the value of the machines in each department; insurance on building, on the same basis as rent; insurance on machinery, on the basis of machinery values in each department; indirect labor, on the basis of the direct payroll for each department; etc. After study of all the factors involved, usually a satisfactory basis can be found for every item of expense.

The departmental expenses thus determined must then be spread over the product. This is done in several different ways, a few of which will be indicated. The most typical of these methods are: the direct labor value, the direct labor hours, and the department or machine hour method. Under the direct labor value method, the ratio between the total direct labor payroll for a given department and the amount of direct labor spent on a given product in that department is considered to represent the equitable proportion of the total departmental expenses to be borne by the product. Thus, if the direct labor payroll is $10,000 and the amount of direct labor in the product is $100, the ratio

is 1%. If, also the total factory expense for that department amounts to \$7,500, then 1% of that, or \$75, is the amount to be borne by this particular product. The same result is obtained when the ratio between the departmental expense and direct labor payroll—in this case 75% (i. e., 7,500 ÷ 10,000)—is applied to the direct labor cost of the product—here 75% of \$100, which is \$75.

In some cases, the direct labor hour basis is considered more equitable. This is computed in the same way as above except that labor hours instead of labor values are used. Thus, if total direct labor hours in a given department are 20,000, direct labor hours in the product, 500, and the total departmental overhead expenses, \$12,000, the portion to be borne by the product is \$300, (500 ÷ 20,000 × \$12,000 = \$300, or, as above, \$12,000 ÷ 20,000 × 500 = \$300).

Again, if departmentization of the factory is carried to the point where a department is so small a unit that all the facilities of each department are employed on each product going through it, a departmental rate per hour can be computed and applied to the product on the basis of the number of hours the product is worked on in that department. Thus, if during a given fiscal period, a department is run for 200 hours and the overhead expense of the department during that time is \$8,000, the rate per hour is \$40. A product consuming three hours in passing through that department would be charged with \$120 as its share of the overhead.

It is thus seen that the problem of distribution of manufacturing expenses, under a formal cost system, is at best quite complicated and requires careful study and handling.

Under the informal system of cost accounts referred to above, no attempt is made to distribute these costs. They are used simply in building up a summary of all of the costs of operating the factory. This summarization is usually made by means of a Manufacturing account opened on the general ledger for this purpose. How this is operated is explained on page 391.

Manufacturing Accounts on General Ledger.—The explanation of accounting for manufacturing operations has centered around the merchandise account, Finished Goods, and those

auxiliary accounts carrying the various costs of manufacturing from which the total cost of product manufactured can be determined. These accounts are: Raw Materials, Factory Payroll, Factory Expense (in detail or as a controlling account), Goods in Process, and Finished Goods. To summarize the flow of value through these various accounts, under a formal cost system such as has been explained, an illustration is given based on the following data:

Raw materials bought, $150,000; payroll $250,000, which includes indirect labor of $45,000; materials requisitioned for manufacture $120,000; factory expenses, exclusive of indirect labor, $58,000; goods completely manufactured and transferred to finished stock room comprise raw materials $105,000; direct labor $175,000; and burden $85,000; cost of finished goods sold, $195,000.

The entries (in journal form) to record these transactions are:

(1) Raw Materials	150,000.00	
Accounts Payable (or Cash)		150,000.00
(2) Payroll	250,000.00	
Cash		250,000.00
(3) Goods in Process	325,000.00	
Raw Materials		120,000.00
Payroll		205,000.00
(4) Factory Expense	58,000.00	
Cash (or Accounts Payable)		58,000.00
(5) Factory Expense	45,000.00	
Payroll		45,000.00
(6) Finished Goods	365,000.00	
Goods in Process		280,000.00
Factory Expense		85,000.00
(7) Cost of Goods Sold	195,000.00	
Finished Goods		195,000.00

When these entries are posted, the various manufacturing accounts will show the following balances, which are interpreted parenthetically:

Raw Materials (representing book inventory)	30,000.00
Goods in Process (representing book inventory of the two elements of unfinished product, viz., raw materials and direct labor)	45,000.00
Factory Expense (representing portion of burden applicable to unfinished product on hand)	18,000.00
Finished Goods (representing book inventory)	170,000.00

Informal Costs and Accounts.—Formal cost systems are not employed in all manufacturing concerns. In such cases, it is not possible to allocate accurately or at all the several elements of cost to each product turned out, for usually material requisitions and labor job cards are not employed. The various manufacturing accounts are kept but they are not operated as under a cost system, where there is a constant flow of value—through the medium of business papers or memos—from one to the other whereby each account is handled on a perpetual inventory basis as explained above. Under an informal cost system, these accounts are handled much as the merchandise accounts in a mercantile business and must be adjusted by means of *physical* inventories at the close of each fiscal period. The taking or rather valuing of physical inventories is a difficult matter, and results are oftentimes unsatisfactory where no formal cost system is in use. Valuing raw materials inventory presents no problem, for purchase invoices will indicate the cost. Inventories of goods in process and finished goods, however, have no supporting data as to values and usually the best that can be done is to make an estimate of the values of their three component elements, viz., raw materials, labor, and burden. A person intimately acquainted with the manufacturing process is often able to make a fairly accurate estimate of the value of product in various stages of completion.

Summarizing Informal Costs.—There are several different ways of adjusting and closing the manufacturing accounts. Sometimes the Goods in Process account is used for this purpose, as it is essentially a manufacturing account. Here, however, a separate Manufacturing account will be used. Under this method, the balance of Raw Materials account, after adjustment on account of the final inventory, will show the cost of raw materials used in manufacture. If, however, purchases of raw materials are charged to a Raw Materials Purchases account and the incarrying charges to a Freight-In on Raw Materials account, it is usually desirable to summarize these and the inventories by means of a Cost of Raw Materials Used account, handled in much the same way as the Cost of Goods Sold account. This method is used in

the illustrative problem on page 440. However this cost of raw materials may be developed, whether in the Raw Materials account itself or in the Cost of Raw Materials Used account, this amount is transferred to Manufacturing account.

Payroll account is closed into Manufacturing account. Goods in Process account is used merely as an inventory account. Its opening inventory is transferred to Manufacturing account because it comprises the first costs of product to be completed during the current period. Its final inventory is set up out of Manufacturing account, i. e., is transferred from it because it represents costs incurred during the present period which are to be carried over or deferred to the next period when the product will be completed. Factory Expense account, after adjustment on account of the portion deferred which represents that part applicable to unfinished product on hand, is closed into Manufacturing account which now, by its balance, shows the cost of product completed. The Finished Goods account is also treated as an inventory account, corresponding to Merchandise Inventory in a mercantile business, and Manufacturing account is handled much as Merchandise Purchases account. In a manufacturing business, the cost of goods sold is found by adding the initial inventory of finished goods to the cost of product manufactured during the current period, from the sum of which the final inventory of finished goods is subtracted, the balance being cost of goods sold. Accordingly, if a Cost of Goods Sold account is used, to it will be transferred the initial inventory of finished goods and the balance of Manufacturing account, and from it will be set up the final inventory of finished goods. An illustration, based on the following data, will indicate the manner of handling.

The inventories on hand in the various manufacturing accounts at beginning of period were:

Raw Materials	25,000.00
Goods in Process	40,000.00
Factory Expense (deferred)	15,000.00
Finished Goods	95,000.00

The transactions during the period comprised: Raw materials bought \$125,000; payroll \$200,000; factory expenses (usually

shown in detail) $75,000. The physical inventories taken at the end of the period were valued at:

Raw Materials	30,000.00
Goods in Process	50,000.00
Factory Expense	20,000.00
Finished Goods	75,000.00

The entries (in journal form) to record and summarize these transactions are:

(1)	Raw Materials	125,000.00	
	Accounts Payable (or Cash)		125,000.00
(2)	Payroll	200,000.00	
	Cash		200,000.00
(3)	Factory Expense (usually in detail)	75,000.00	
	Cash (or Accounts Payable)		75,000.00

The adjusting entries, on account of manufacturing inventories, are:

(4)	Raw Materials (Inventory)	30,000.00	
	Raw Materials		30,000.00
(5)	Goods in Process (Inventory)	50,000.00	
	Manufacturing		50,000.00
(6)	Factory Expense (Deferred)	20,000.00	
	Factory Expense		20,000.00

The following entry will summarize the cost of product completed during the period:

(7)	Manufacturing	430,000.00	
	Goods in Process		40,000.00
	Raw Materials		120,000.00
	Payroll		200,000.00
	Factory Expense		70,000.00

The entries to determine cost of goods sold and to set up the final inventory of finished goods are:

(8)	Cost of Goods Sold	475,000.00	
	Finished Goods		95,000.00
	Manufacturing		380,000.00
(9)	Finished Goods	75,000.00	
	Cost of Goods Sold		75,000.00

The student should set up these accounts and make the postings, after which their balances will show as follows (Cash and Accounts Payable being omitted):

Raw Materials	30,000.00
Goods in Process	50,000.00
Finished Goods	75,000.00
Factory Expense	20,000.00
Cost of Goods Sold	400,000.00

The remainder of the adjusting and closing entries for a manufacturing business are exactly similar to those of a mercantile concern.

The Financial Statements of a Manufacturing Business.—The balance sheet of a manufacturing concern does not differ in form from that of a mercantile business. Its content, however, is usually fuller, as accounts characteristic of the manufacturing plant will appear in it. These are such titles as: Factory Buildings; Factory Land; Machinery; Tools; Patterns and Dies; Factory Furniture and Fixtures; Patents; etc., and, if a corporation, Bonds Payable and the various Capital Stock and Surplus accounts. The profit and loss statement, however, differs somewhat both in form and content, for in it the factory operations must be reflected. The manner of doing this is shown in the illustration (Form 43) opposite.

The manner of showing goods in process inventories should be noted, the one as an addition to manufacturing cost, the other as a deduction. Sometimes, only the net difference between the two inventories is shown, this difference being added if the opening inventory is the larger and subtracted if the final inventory is larger. This manner of handling is shown in the form of the Cost of Goods Manufactured section given on page 396.

It is apparent that the profit and loss statement for a manufacturing concern must contain a great deal of detailed information. To relieve the main statement of much of this detail so that the major sections can stand out more significantly, a condensed statement form is used, as illustrated in Form 52, page 444.

THE S. & R. CORPORATION
STATEMENT OF PROFIT AND LOSS
For the Year Ended December 31, 19—

SALES			$700,000.00	
Sales Returns and Allowances			15,000.00	
NET SALES				$685,000.00
COST OF GOODS SOLD:				
Finished Goods on hand Jan. 1, 19—			$ 95,000.00	
Cost of Goods Manufactured:				
Goods in Process on hand Jan. 1, 19—		$ 40,000.00		
Raw Materials:				
On hand Jan. 1, 19—	$ 25,000.00			
Purchases	125,000.00			
	$150,000.00			
Less:				
On hand Dec. 31, 19—	30,000.00			
Cost of Raw Materials Used in Manufacture		120,000.00		
Direct Labor		200,000.00		
Manufacturing Expenses:				
Factory Expenses (in detail)		70,000.00		
		$430,000.00		
Less:				
Goods in Process on hand Dec. 31, 19—		50,000.00		
Cost of Goods Manufactured			380,000.00	
			$475,000.00	
Less:				
Finished Goods on hand Dec. 31, 19—			75,000.00	
COST OF GOODS SOLD				400,000.00
GROSS PROFIT				$285,000.00
SELLING EXPENSES:				
(Listed in detail)			$100,000.00	
GENERAL ADMINISTRATIVE EXPENSES:				
(Listed in detail)			95,000.00	
FINANCIAL MANAGEMENT EXPENSES:				
(Listed in detail)			25,000.00	
TOTAL OPERATING EXPENSES			$220,000.00	
FINANCIAL MANAGEMENT INCOME:				
(Listed in detail)			15,000.00	
NET OPERATING EXPENSES				205,000.00
NET OPERATING PROFIT				$ 80,000.00
NON-OPERATING EXPENSE AND INCOME:				
(Listed in detail; here, net expense)				5,000.00
NET PROFIT FOR THE YEAR				$ 75,000.00

Form 43. Statement of Profit and Loss

COST OF GOODS MANUFACTURED:

Raw Materials:			
On hand Jan. 1, 19—	$ 25,000.00		
Purchases	125,000.00		
	$150,000.00		
Less:			
On hand Dec. 31, 19—	30,000.00		
Cost of Raw Materials Used in Manufacture		$120,000.00	
Direct Labor		200,000.00	
Manufacturing Expenses:			
Factory Expense (in detail)		70,000.00	
		$390,000.00	
Less:			
Increase in Goods in Process Inventory:			
Goods in Process, Dec. 31, 19—	$ 50,000.00		
Goods in Process, Jan. 1, 19—	40,000.00	10,000.00	
COST OF GOODS MANUFACTURED			$380,000.00

CHAPTER 29

THE VOUCHER SYSTEM

Manufacturing Requires Detailed Information.—It was pointed out in Chapter 28 that the manufacturing business requires a considerably larger investment in fixed assets than the mercantile business. It is also apparent from the manufacturing statement there shown that the management of a manufacturing business must be furnished with considerably more information for the proper conduct of the business. In a small business concerned only with the problems of merchandising, it may be possible in many instances for the owner and his assistants to carry in mind, for the period between initiation and completion, the various transactions entered into. In the case of all large transactions, however, even in the small business, it is customary to make record of them at the time of their initiation. Thus stock-in-trade purchases are always recorded as soon as received. It is not customary, however, to make a record of the numerous small purchases of supplies of various sorts upon their receipt, entry being held over until these items are paid for. In this way the first record of these transactions is made in the cash disbursements journal where distributive columns for each type of transactions make unnecessary the posting of the individual items. As the business grows in size and its organization becomes departmentized, with executives in charge of each and responsible for the necessary supplies and other operating expenditures, the need for quicker information with regard to all of these items—which in total amount to considerable sums—is evident. In the manufacturing business with its larger plant investment, and usually larger labor force as compared with a mercantile concern, the methods previously explained for use in recording these data and presenting the management with factual information relative to them become quite inadequate. It is necessary, therefore, to develop a method of systematic record by means of which the information desired may be furnished expeditiously to the executives needing it. What is known as the

"voucher system" of record-keeping is the method which is used quite generally for this purpose.

Inadequacy of the Purchase Journal for Manufacturing.—The explanation of the purchase journal in Chapter 13 as a means of saving labor in connection with the recording of purchases limited the record to the purchases of stock-in-trade. A brief explanation, however, was there given of the expansion of that journal, to take care of a departmental analysis of purchases of stock-in-trade, into a type of journal which, together with a similar journal for sales of stock-in-trade, makes possible the computation of the gross profit on the merchandising activities of the various departments. A further development of the journal is also there noted in accordance with which the definition of the term, purchases, is extended to include not only purchases of stock-in-trade but operating supplies and services of all kinds. Under this broadened definition, the employment of salespersons, clerks, and others may be looked upon as the purchase of their services, and the contracting for such things as leasing of plant, light and heat service, the buying of stationery and other supplies—all these may be viewed as purchases of these various kinds or classes of items. Provision for their record may, therefore, be made in a purchase journal by means of the addition of distributive columns, each headed with its own account title, in which the item will be recorded and thus classified as to the proper account affected in the ledger. Such a purchase journal is usually termed a "purchase" or "voucher register."

Entry in a purchase register of this sort is much the same as in the purchase journal which is limited to the record of stock-in-trade, in that it requires the setting up of an account with each individual creditor as the offset to that particular account which is debited for the kind of purchases made. These debits are secured from the totals of the distributive columns while the credits to the accounts with individual creditors come from the formal set-up of the creditor's name in the section of the journal used for that purpose. It is evident that this method will increase the number of creditors' accounts, as one must be opened for each purchase regardless of its size. Information of this kind relating to dealings with many small creditors is usually of little significance to the

management of a business. Hence, in connection with the use of this expanded purchase journal, a method has been devised whereby the keeping of accounts with individual creditors may pretty largely be dispensed with. The "purchase" or "voucher register system," as usually operated has these characteristic features:

1. The broadening of the term purchases as explained above with the resultant saving of labor in posting, brought about by the use of the distributive column totals instead of the individual items.
2. The recording of the liability for these various kinds of purchases as soon as that liability comes into existence rather than the deferring of the record of the item until its payment.
3. The complete or partial elimination of the creditors subsidiary ledger.

The operation of this new record, the voucher register, will be explained in this chapter.

The Individual Transaction the Unit for Entry in the Voucher Register.—The unit of analysis of a transaction to be entered in the purchase journal is usually the account opened with each creditor. In this account are gathered together all of the dealings with each creditor. In the expanded purchase journal referred to above, this would necessitate the opening of numerous creditor accounts, in many of which there would be but one or at the most a very few entries, because in the purchase of supplies and service the place of purchase or vendor is changed so frequently. The method developed for doing away with individual creditors' accounts makes use only of a total or general account termed "Accounts Payable" or "Vouchers Payable," quite similar to the Accounts Payable controlling account carried on the general ledger for the purpose of controlling the usual creditors subsidiary ledgers. In place of the subsidiary ledger, each entry in the voucher register is made to serve not only as a journal record but also as a ledger record. This is possible when every transaction entered in the register is viewed as an individual creditor's account. For the complete ledger record of such an account, there

is ordinarily needed only a single line on which both the credit may be set up and also its offsetting debit when the liability is canceled by payment. Hence, by means of the introduction in the purchase register of an additional column, usually to the left of the total column, provision can be made for recording in that column the debit indicating the cancellation of the liability to the creditor.

It will be apparent that this method of record-keeping conceives of the transaction as the unit both for setting up the liability and also for its cancellation. Thus payment on account covering several previous purchases or overlapping to cover parts of purchases must largely be done away with. In other words, the financial policy of the corporation must be so ordered that it will be possible to pay all bills individually as they come due. Where this is done, it will not even be necessary to enter the amount in the debit "Paid" column of the register, inasmuch as the entire liability for each item is canceled by a single payment. Hence, only a notation in the Paid column that the item has been paid, together with the number of the check making payment, is all that is required.

Debit and Credit under the Voucher System.—The scheme of debit and credit used under the voucher system is shown in the form of journal entries in order that the student may fix in mind the debit and credit operation of the system.

(a) All purchases of whatever sort are entered in the Total column of the voucher register which is a credit column and extended from it into the various distributive columns which are debit columns each headed with its account title. Assuming certain account titles to be used in such a register, the following set-up will indicate the debit and credit scheme:

Raw Materials	xxx
In-Freight and Cartage..................	xxx
Direct Labor	xxx
Indirect Labor	xxx
Factory Supplies	xxx
Sales Salaries	xxx
Advertising	xxx
Delivery Expense	xxx

Office Salaries	xxx	
Office Supplies	xxx	
Etc., etc.	xxx	
Vouchers Payable		xxx

This entry posted to the general ledger sets up the total liability for these various kinds of purchases as soon as that liability exists, and shows the offsetting debit to the various expense and other accounts affected.

(b) When the liability is canceled by the payment of cash, the only entry necessary in the cash disbursements journal is as follows:

Vouchers Payable	xxx	
Cash		xxx

The entry of each paid bill in the cash disbursements journal will show the creditor's name and the check number issued in payment. These individual entries in the cash disbursements journal are then posted or entered in the Paid column of the voucher register, so that the account as there set up on the single line will be shown entirely canceled or closed off.

To contrast this procedure with that necessary where the purchase journal is limited to a record of purchases of stock-in-trade and where the first entry of payments on account of expenses is made in a cash disbursements journal, the debit and credit analysis for such a method is shown below.

(a) For the purchase of stock-in-trade, the debit and credit analysis of the entry in the purchase journal is as follows:

Merchandise Purchases	xxx	
Accounts Payable		xxx

(b) For the various entries in the cash disbursements journal, the debit and credit analysis for a typical group of items is:

Accounts Payable (i. e., for merchandise)	xxx	
In-Freight and Cartage	xxx	
Sales Salaries	xxx	
Advertising	xxx	
Delivery Expense	xxx	
Office Salaries	xxx	
Office Expense	xxx	
Etc., etc.	xxx	
Cash		xxx

Under this method, it becomes necessary to maintain a subsidiary accounts payable ledger for merchandise creditors, in which the credit postings to the individual accounts come from the purchase journal and the debit postings from the cash disbursements journal.

Voucher No.______
Check No.______

THE NATIONAL MANUFACTURING CO.

To (Name of Creditor) Dr.
(Address)

Terms:

(Details of items Covered by Voucher)

Approved: (Purchasing Dept.)
Passed for payment (General Manager)
Approved: (Auditor)

(Place & Date) 19____

Received ________________ Dollars $______
In full settlement of above items

Signed (Creditor)

PLEASE RECEIPT AND RETURN

Form 44a. Voucher (face)

The Voucher the Basis for the Voucher System.—As was pointed out above, each individual transaction under the voucher system of accounting is the unit or basis of entry and may be looked upon as an account. In order to provide a systematic basis for recording and indexing these individual transactions, it is customary to give each a number, and entry of the transaction is made in the voucher register in sequence of these numbers.

Each purchase of whatever sort is usually evidenced by a vendor's bill or invoice. These are of various sizes, forms, and colors. To provide a suitable formal document for entry in the voucher register, use is made of what is termed a voucher jacket or simply a voucher. This is one of the business papers or memos, and all

(Name of Creditor) No.______
(Address)

THE NATIONAL MANUFACTURING CO.
Brooklyn N.Y

VOUCHER

PAID BY CHECK No.______ $______
DATE ______

CHARGE TO					
Total forward					
Office Salaries					
Office Supplies					
Sundry Office Expenses					
Tel. Tel. & Postage					
Rent			CHARGE TO		
Insurance			In-Freight & Cartage		
Interest			Direct Labor		
			Indirect Labor, Factory		
			Light, Heat & Power		
			Raw Materials		
			Sundry Factory Expense		
Plant					
Equipment					
Furniture & Fixtures					
			Salesmen's Salaries		
			Salesmen's Commissions		
			Advertising		
			Delivery Expense		
			Out-Freight		
Total			Total		

Form 44b. Voucher (reverse)

vouchers are uniform as to size, color, and form. As to form, the essential part of this voucher jacket is an invoice form or ruling which provides for the name and address of the vendor, the date of the bill, terms, etc., together with details of the items purchased and the amount of the bill. On this may be copied the data from the vendor's bill, or the vendor's bill may simply be "clipped" to this. These vouchers are numbered in sequence and are then entered in the voucher register in sequence of their num-

bers, this being also the chronological sequence of the invoice dates.

Inasmuch as under the voucher system each purchase is settled individually, it is desirable to secure from the vendor a receipt that a given payment covers a particular invoice. This may be accomplished by either of two methods. The vendor's invoice or the voucher on which appears a transcript of that invoice may be sent with the check, and the vendor be requested to receipt and return it. This method places an added burden on the vendor which may be obviated under what is known as the "voucher check" method. Under this method, the invoice portion of the voucher may be set up in very much condensed form at one end of the

No.________

UNION TRUST CO.

Date		Invoice	Amount	
		Total Invoices		
		Less – % Discount		
		Less Freight		
		Total Deductions		
		Total Remittance		

New York City____________

Pay to the
Order of ____________________ $ ________

____________________________Dollars

THE ELITE SUPPLY CO.

By____________________Treas.

Approved

____

Auditor

If incorrect, please return

Form 45. Voucher Check—Single

check or on its reverse. The check when deposited by the vendor bears his indorsement and will, when collected, come back to the bank on which issued and through it to the payer. This canceled check bearing the vendor's indorsement constitutes at law a good receipt for the payment of the bill, the details or summary of which are stated in the small invoice form on the check. Sometimes the check carries on its face a notation to the effect that the check is issued in payment of the attached invoice. Sometimes also on the reverse of the check, above the space for indorsements, a notation is made that indorsement of the check is an acknowledgement of full payment of the bill.

MAKE ALL INDORSEMENTS HERE

Voucher No.________ Check No. ________

THE F.E.FOWLER CO.

New York City____________

Pay to the order of ________________________ $ ________

________________________________Dollars

In full settlement of the within accounts

THE F.E.FOWLER CO.

TO CONGRESS BANK AND TRUST CO. By ______________________Treas.

New York City

Voucher No. ________ Check No. ________

THE F.E.FOWLER CO.

To (Name of Creditor) Dr.

(Address) Terms ________

Charge to					(Details of items covered by Voucher)		

Approved

____________________Auditor

Approved

Passed for payment

(Purchasing Dept.) ____________________Gen'l Manager

If incorrect, Return; Indorsement is sufficient Receipt

Form 46. Voucher Check—Folded (face and reverse)

Many different forms of voucher check are in use, the folded voucher check being used quite extensively. This is illustrated in Form 46. With this form, more space is available for the invoice portion, on which usually the details of the vendor's bill are entered. Provision is frequently made, particularly on the separate voucher jacket as distinguished from the voucher check form, for an indication of the debit and credit analysis of the transaction covered by the bill. Reference to Form 44 will show how this is done.

When a separate voucher and check are used, it is customary to make the voucher in duplicate, the original being sent to the vendor with the remittance, the duplicate being retained as an office copy. In the event that the vendor does not return the original with his receipt upon it, the office copy will constitute the basis for entry in the register. On this duplicate copy the distribution of the voucher is made, i. e., the account titles to be charged are set up and the amount of each charge shown. This debit and credit analysis is done by an accounting officer or one of the operating officials who has the requisite knowledge as to the proper charge to be made. When the charges are thus distributed, the duplicate copy is given to the clerk in charge of the voucher register, who makes the entry in accordance with the analysis shown.

In the handling of purchases under the voucher method, the same audit or verification procedure should be followed as was explained in Chapter 16 in connection with the paper work of a business. Thus, the bill when received should be checked against the office copy of the order and also against the goods, supplies, or other items received; unit prices should be checked against the agreed prices; extensions and footings should be checked and verified. On the voucher, as will be seen from the illustrations, provision is usually made to record the initials of the various persons on whom rests the responsibility for making these various checkings. If everything is found correct, the voucher is passed for payment and will then be held in a tickler file until its date of payment, when the check will be drawn for the necessary amount less discounts, if any, and remitted to the vendor. All paid vouchers, because they constitute the explanation and the supporting document for entry in the voucher register, should be

preserved. They are usually, therefore, arranged in numeric sequence in a paid vouchers file to which reference can be made in case any bill is questioned.

Form of the Voucher Register.—The voucher register is a columnar book of record in which the formal voucher or voucher jacket is, after its preparation, recorded in accordance with the debit and credit analysis of the transactions. Like any other special journal, it provides at the extreme left-hand margin columns for date and voucher number. This is followed by the wide explanation column in which entry is usually made of the creditor's name together with any explanatory matter, such as terms of purchase, etc. Following this comes the Paid column with two sub-columns, one for the date, the other for the manner of payment. In this latter column cross-reference to the cash disbursements journal or the check number or note may be entered. Then comes the Total column, which is usually headed Vouchers Payable. A Purchase Discount column is sometimes inserted next. This may be either a memorandum column or a posting column, according to the manner of handling such discounts as will be explained on page 417. The distributive columns in a manufacturing business are usually arranged in groups, one group composed of a number of columns for manufacturing accounts, another group for selling expense, another for general administrative expense, followed by several miscellaneous columns. The sub-columns under the manufacturing group will provide account titles for Raw Materials; Factory Supplies; In-Freight and Cartage; Direct Labor; Indirect Labor; Light, Heat, and Power; Plant Repairs and Maintenance; Sundry Factory Expense; etc. Under the selling expense group will appear the usual account titles, such as Sales Salaries, Advertising, Delivery Expense, etc. The general administrative group will provide columns for the usual account titles under that group. Because provision must be made also for the record of those purchases which occur rather infrequently and for which, therefore, it would be wasteful to assign separate columns, a final column headed "Sundry Charges" is provided. This is followed by a ledger folio column and a wide column in

VOUCHER REGISTER

DATE 19—		VOUCHER NO.	CREDITOR	EXPLANATION Terms, etc.	PAYMENT Date	PAYMENT Manner	VOUCHERS PAYABLE	PURCHASE DISCOUNT	RAW MATERIALS	IN-FREIGHT CARTAGE
May	1	2369	Thomas Byrne	net	May 10	C 36	4000 —			
	2	2370	Arthur French	2/10, 1/30, n/60	May 11	C 37	380 —	6 88	343 80	36 70
	3	2371	Leff & Co.	2/15, n/30	May 18	N.J. 10	425 30	8 51		
	5	2372	Truxton Jones	1/10, n/30	May 15	C 38	1,919 40	17 99	1,470 —	120 60
	7	2373	Harvey Hubbell Inc.	2/10, n/30			1,251 60	25 03		
	8	2374	Payroll		May 8	C 34	2,798 67			
							10,774 97	58 41	1,813 80	156 80
							L54	✓	L60	L61

VOUCHER REGISTER

DIRECT LABOR	INDIRECT LABOR	FACTORY EXPENSE	SALES SALARIES	SELLING EXPENSE	OFFICE SALARIES	OFFICE EXPENSE	SUNDRY CHARGES	L. F.	ACCOUNT TO BE CHARGED
							4,000 —	74	Delivery Equipment
		276 70		149 10					
		200 —		128 80					
						51 60	1,200 —	19	Furniture & Fixtures
1820 40	632 17		241 60		104 50				
1,820 40	632 17	476 20	241 60	277 90	104 50	51 60	5,200 —		
L62	L63	L64	L70	L71	L80	L81	✓		

Form 47. Voucher Register (left- and right-hand pages)

which will be set up the name of the account to be charged. The illustration shown in Form 47 indicates a fairly typical form of voucher register with entries.

If a greatly detailed subdivision of accounts must be provided for, short-margin insert sheets may be placed in between two full-margin sheets. These insert sheets will carry only money columns. In this way expansion of the distributive columns to almost any extent desired can be made, the entry of the name of creditor and other data on the left-hand portion of the full-margin sheet applying to these short-margin distributive sheets as well.

Another form of the voucher register is sometimes used in which provision is made for carrying controlling accounts for each of these main groups of items, the detailed accounts for each being carried in subsidiary ledgers. To indicate the account in the subsidiary ledger to which posting is to be made, each money column is provided with a narrow "Account Number" column, immediately to the left. All accounts in the subsidiary ledger are known by numbers as well as by names. Thus, in the Selling Expense column which gathers the total figures for posting to that account on the general ledger, if a charge for a particular voucher must be made to, say, Advertising Supplies account on the subsidiary ledger and the number of that account is 624, in the Account Number column on the same line with the amount in the voucher register the figure "624" will be entered. The amount will be posted to account 624, Advertising Supplies, on the selling expense ledger and will also be included in the Selling Expense column total which will be posted to the general ledger controlling account, Selling Expenses. By this means the voucher register does not have to be provided with so many distributive columns nor is the general ledger filled with so many detailed expense accounts. A typical form of register of this sort is shown in Form 48.

At the close of the month or other period, the columns of the voucher register are totaled. The sum of the distributive column totals is checked against the total of the Vouchers Payable column to prove the accuracy of the distribution. The total of Vouchers Payable column is then posted to the credit of Vouchers Payable account, and the totals of the various distributive accounts are

VOUCHER REGISTER

DATE 19—	VOUCHER NO.	CREDITOR	EXPLANATION TERMS, ETC.	PAYMENT		VOUCHERS PAYABLE	PURCHASE DISCOUNT	RAW MATERIALS		IN-FREIGHT CARTAGE	
				Date	Manner			Acct.No.	Amt.		
Jan. 1	2496	Foltis-Fischer Co.	2/10, n/30	Jan. 9	C242	4,500 —	90 —				

VOUCHER REGISTER

	DIRECT LABOR	MFG. EX.		SELLING EX.		GEN'L ADMIN. EX.		FIN. MGMT. EX.		SUNDRY CHARGES	L.F.	ACCOUNT TO BE CHARGED
		Acct.No.	Amt.	Acct.No.	Amt.	Acct.No.	Amt.	Acct.No.	Amt.			
				624	4,500 —							

Form 48. Voucher Register (left- and right-hand pages)

posted to the debit of their respective accounts. The line below the total may be used for entering the ledger folios of the various accounts to which posting has been made.

The entries in the Paid column are in the nature of postings to a ledger account and are made from the journal in which is recorded the charge to the creditor concerned in each transaction. This will usually be the cash disbursements journal, although sometimes the notes payable journal and the general journal may give rise to posting to the Paid column. Any blanks in the Paid column will indicate vouchers which have not yet been paid. Periodically when the voucher register is summarized, the total amount of unpaid vouchers should be determined and checked against the balance of the Vouchers Payable account on the general ledger. This procedure is similar to that used in connection with the customers subsidiary ledger, from which a total of all open accounts is taken and proved against the balance of the controlling account, Accounts Receivable, on the general ledger.

In some businesses, it may not be convenient to pay each transaction in total when due, or it may be desirable to maintain a formal accounts payable subsidiary ledger in which to keep accounts with merchandise creditors in order to secure information as to volume of business done with each, as under the purchase journal method. This can be accomplished through the use of the voucher register by introducing another credit column next to the Vouchers Payable column. This new column may be headed Accounts Payable or Trade Creditors. In it will be entered only the transactions with those creditors whose accounts are carried in the accounts payable ledger, the total of the column serving as a controlling figure over the credit postings to that ledger. All other transactions will be entered in the Vouchers Payable column and will be handled as explained previously. Extension from these two columns into the debit distributive columns is handled as above explained. By this method accounts need not be kept with the numerous creditors for supplies and expense items, each of them being paid in full for each transaction. Thus the advantages of the voucher system together with the convenience of the accounts payable ledger can be secured through the use of a single special journal, the voucher register.

The Index of Creditors.—Because under the voucher system individual accounts with creditors are not kept in a separate creditors ledger—but only on the face of the voucher register—reference to transactions with particular creditors is difficult, since the transactions are not indexed and summarized by creditors' names. To facilitate such reference, a card index of creditors is carried, each creditor being provided with a card and the cards filed alphabetically by creditors' names. On each card are recorded the various transactions with that creditor. This is in the nature of a posting from the voucher register to the card index. Usually the card index carries only the voucher number. If it becomes necessary to look up transactions with a particular creditor, reference to this card index gives a cross-reference to the voucher numbers carrying a record of the transactions with this creditor. These vouchers can then be drawn and the necessary detailed data become available. The card index also makes possible a determination of the volume of business being done with any creditor—information which is sometimes of importance. By referring to the vouchers covering the transactions with a particular creditor, the total volume of business done can be computed.

The Cash Disbursements Record under the Voucher System.—Inasmuch as the detailed analysis of all purchase transactions is made in the voucher register, it is not necessary to make any provision for this in the cash disbursements journal. All cash being disbursed by check and each cash disbursement being covered by a voucher, a column headed "Vouchers Payable" in the cash disbursements journal provides the necessary total posting to the debit of the Vouchers Payable account. It may also be desirable to provide the usual Purchase Discount column. Where the two columns are used, it is convenient to use a third column to show the net amount, that is, the difference between the gross amount in the Accounts Payable column and the deduction in the Purchase Discount column. This Net column is the amount of the cash disbursement and, therefore, the amount shown by the check.

Inasmuch as terms of credit extended by various vendors differ, the payment of the vouchers will not take place in the

same chronological sequence according to which they are recorded in the voucher register. Hence, these payments as entered in the cash book will not follow the sequence of voucher numbers. It is best, therefore, to give the checks issued in payment of vouchers a series of numbers independent of the voucher number. If the method of using a check separate from the voucher is followed, this causes no confusion. If, however, a voucher check method is employed, the check will carry two numbers, the voucher number and its own check number. Entry in the voucher register is in accordance with the voucher numbers, while entry in the cash disbursements journal will follow the sequence of the check numbers. Provision will be made in the cash disbursements journal for two explanatory columns, one to carry the check number and the other the voucher number. Such a cash disbursements journal is sometimes termed a "check register."

Some of the unusual problems met with in connection with a voucher register system will now be explained. These cover the following situations: (1) the introduction of the voucher system in a system where formerly an accounts payable ledger was used; (2) the handling of purchase returns and allowances; (3) partial payments on vouchers; (4) handling notes payable transactions; and (5) handling cash discounts on purchases.

The Introduction of the System.—No formality need attend the introduction of a voucher system into a set of books where formerly none was used. The individual accounts in the accounts payable ledger should be closed off by a transfer to the voucher register. In making the transfer to the voucher system, it will be necessary to prepare vouchers, not usually for the balance of each creditor's account, but for each one of the individual unpaid items in each creditor's account. This is necessary because in accordance with the credit terms extended, each transaction will become due and must, therefore, be settled at a different date. If there are, for example, three unpaid items with different due dates in a creditor's account, three separate vouchers must be prepared and entered on the voucher register. A card index of creditors will also be prepared. Usually the control account, Accounts Payable, will have its name changed

or will be closed off into a new account termed "Vouchers Payable."

When the individual vouchers are entered in the voucher register, inasmuch as the debit analysis of each of these has already been entered in the records, there will be no distribution to such debit accounts on the face of the register. However, the entry of the amount of these vouchers in the Vouchers Payable column will, when the total of that column is posted, result in a double credit in the Vouchers Payable account, viz., the balance carried over from Accounts Payable account and an equal amount included in the total of Vouchers Payable column from the voucher register. This must be corrected by securing an offsetting debit of equal amount. The individual vouchers, therefore, are distributed into the Sundry Charges column, and a charge is made to Vouchers Payable account by entry of that title in the "Account Title" or "Account to be Charged" column. These individual debit postings will exactly offset the double credit to Vouchers Payable indicated above. With these entries made, the system is ready for operation and will be carried on in accordance with the principles previously explained.

Handling Purchase Returns and Allowances.—The handling of purchase returns and allowances, after entry has been made of the original purchase voucher, is rather awkward. A purchase return or allowance is, of course, a debit to the vendor's account, to be deducted from the amount of the original invoice in order to determine the net amount due in settlement of the bill. Under the voucher system, where a single line is given to each account, the debit to the account being simply a memorandum that the account has been paid and the manner of its payment, no provision is thus made for recording adjustments due to purchase returns and allowances. Of course, if such returns and allowances are made immediately upon the receipt of the goods and can be taken effect of upon the face of the vendor's bill before it is vouchered and passed for payment, inasmuch as the voucher will then carry the net amount after adjustment, no further problem is encountered.

If, however, the amount of the original bill has been entered on the voucher register, the purchase return and allowance must

be entered as a deduction item, shown as such by means of red ink, immediately above and on the same line with the entry of the original bill. The amount of the adjustment will be entered in red ink in the Vouchers Payable column, and will also be extended and entered in the distributive column or columns affected so that the net amount of the bill will agree with the net amounts distributed. These red ink items are, of course, deduction items and, when the various columns are totaled, either the net total may be shown or two totals on the one line, the one in red ink being the total of all red ink items in the column, the other in black ink being the total of all black items. Where two totals are shown, these will usually be posted to opposite sides of the same account. Thus in the Vouchers Payable account, the black total will be posted to the credit and the red total to the debit. In the distributive columns, the two totals will be posted in reverse. In a mercantile business, the Merchandise Purchases column, instead of being posted as just indicated, may have its black total posted to the debit of Merchandise Purchases account, and the red total posted as a credit to Purchase Returns and Allowances account opened for that purpose.

An alternative method for entering purchase returns and allowances provides for the complete cancellation of the original voucher and the issue of a new one for the net amount of the bill in its place. This may be accomplished by means of an entry in the general journal, somewhat as follows:

Vouchers Payable (#369)	1,275.00	
Vouchers Payable (#598)		1,210.00
Purchase Returns and Allowances (or other suitable account title)		65.00
To cancel Voucher #369 and authorize its re-issue in Voucher #598, on account of return of unsatisfactory merchandise.		

The credit here shown to Purchase Returns and Allowances will be made, of course, to the account to which original distribution was made of the debit analysis of the transaction, in order to adjust it to the necessary net distribution. The method of the red ink adjustment is usually preferred because it entails less bookkeeping.

Handling Partial Payments.—An equally awkward situation is met when it becomes necessary to make partial payments on a voucher. The voucher system is built on the idea that full payment will be made of the voucher for each transaction. No provision is made as indicated above for canceling only a part of a voucher. Accordingly, where partial payments are to be made, the method of canceling the original voucher and re-issuing it in whatever number of new vouchers it is planned to make payment must usually be followed. This may be done either by formal entry on the general journal somewhat similar to the entry shown on page 415, although of course this entry will not involve the purchase returns and allowances adjustment; or, better still, in the Paid column of the original voucher may be entered the numbers of the new vouchers in which the old has been re-issued. This entry thus cancels the old voucher and re-issues it in the new. The amounts of these new vouchers will be entered in the Vouchers Payable column and extended in the Sundry Charges column where they will be shown as debits to Vouchers Payable account and from which they will be so posted. Manifestly, if partial payments on vouchers become frequent, it indicates a situation to which the use of the voucher system is not well adapted. Here, the use of the voucher register for ledger purposes should be discarded and an accounts payable ledger used in its place.

Handling Notes Payable.—Under the voucher system, it is customary to make a voucher for every transaction which will ultimately result in a cash disbursement. This procedure when applied to notes payable at the time when the note is issued, does not work satisfactorily. The issue of a voucher and its entry in the voucher register for a note which will have to be paid sometime in the future has the effect of converting the note payable liability into a vouchers payable liability, inasmuch as the distribution of the voucher will have to be made to the debit of Notes Payable. This, of course, is not in accordance with the current status of the transaction and cannot, therefore, be countenanced. The proper procedure, accordingly, requires the holding up of the issue of the formal voucher until the time of pay-

ment of the note. When the voucher is made out and entered on the voucher register at the time the check is drawn for payment of the note and entered in the cash disbursements journal, there will be a simultaneous conversion of the note payable liability into a voucher payable liability which is immediately canceled through the debit to Vouchers Payable account from the cash disbursements journal.

When, however, a note payable is made payable at the maker's bank, when presented there for payment it will be paid and a charge memorandum will be put through by the bank, from which posting will be made to the debit of the depositor's checking account. The canceled note and the charge memorandum are sent to the depositor as notification to him that his account has been charged for the amount of the note. Under such circumstances, the simplest procedure is to issue a voucher using the canceled note and bank debit memorandum as authority for it. This voucher will be entered regularly and extended into the Sundry Charges column where it will be charged to Notes Payable account. Also entry of the bank charge slip will have to be made in the cash disbursements journal. The charge slip itself should be given the next consecutive check number and treated as a canceled check, the amount being entered in Vouchers Payable column. If a voucher check system is in use, the voucher check —which is an integral part of the voucher entered on the voucher register—will have to be canceled and entered in the cash disbursements journal.

Handling Cash Discounts on Purchases.—Under the voucher system, practice varies as to the manner of handling cash discounts on purchases. Where it is planned to maintain sufficient cash funds on hand to be able to take advantage at all times of discounts offered, some concerns make up their vouchers for the net amount of the purchase. This net amount will be entered in the Vouchers Payable column of the voucher register, the amount of the discount in the Purchase Discount column and usually the gross amount will be extended in the appropriate distributive columns. This procedure brings about an anticipation of the purchase discount. Purchase discount is not earned until

payment is made. Under this procedure, the Purchase Discount column of the voucher register becomes a credit column from which postings will be made to that account. The Vouchers Payable column plus the Purchase Discount column comprise the two credits against which the offsetting debits are found in the distributive columns. When the voucher is paid, the net amount is entered in the Vouchers Payable column of the cash disbursements journal and that amount is extended into the Net Cash column. It is customary also to provide a Purchase Discount column in the cash disbursements journal and to enter in it, *as a memorandum only,* the amount of the purchase discount. At the close of the fiscal period when the books are to be adjusted and closed, the discounts on all unpaid vouchers must be deferred as a deferred income item to the next period when payment of the bill will earn the discount.

Probably the most usual procedure, however, is to make out the voucher for the gross amount, this amount being entered in the Vouchers Payable column and extended into the various debit distributive columns. Here there is no need for a Purchase Discount column in the voucher register, or if one is used, it is merely a memorandum column. If the voucher is paid in time to secure the discount, the deduction of the discount will be entered on the face of the voucher to arrive at the net amount for which the check will be drawn. The check will be entered in the cash disbursements journal—the gross amount of the voucher in the Vouchers Payable column, the amount of the purchase discount in the Purchase Discount column, and the net amount in the Net Cash column. The posting to the Purchase Discount account will be made from the cash disbursements journal, and no adjustment of that account will be necessary at the close of the fiscal period because all the discount has been earned.

Through the use of a check number separate from the voucher number and the entry of checks in the cash disbursements journal in accordance with the sequence of check numbers, no difficulty will be encountered in reconciliation of the bank balance with the cash book balance when canceled checks are returned by the bank. Since all checks have been entered according to the sequence of

check numbers, the amounts of the outstanding checks can be readily determined.

Advantages and Disadvantages of the Voucher System.—Some of the advantages claimed for the voucher system are:

1. It gives a detailed analysis of all purchases.
2. It saves labor by doing away with the purchase ledger.
3. It secures an up-to-date entry of all liabilities.
4. It localizes responsibility by showing authority for the auditing, payment, and entry of the items.
5. It secures a receipted bill for all disbursements of cash.

The chief disadvantages are:

1. Clumsy provision for returns and allowances, partial payments on bills and notes payable.
2. Inadequate showing of volume of business with each creditor.
3. The giving out of information about the business which should be kept private.

It may be said that in situations where these disadvantages seem to outweigh the advantages, no attempt should be made to use a voucher system. In a large organization, however, properly financed, the voucher system does give excellent results and brings about an up-to-date entry of all liabilities, a feature which is particularly desirable.

Summary of Operation.—To focus the student's attention on the essential steps in the operation of a voucher system, a summary of the necessary routine follows:

1. A verification of invoices.
2. Making up and entering the vouchers.
3. Filing vouchers for payment.
4. Paying vouchers.
5. Filing paid vouchers.
6. Indexing vouchers.

CHAPTER 30

CORPORATE SURPLUS, DIVIDENDS, AND CLOSING THE BOOKS

Surplus and Its Principal Divisions.—On a corporate balance sheet, the term "Surplus" means the excess of total net worth over the portion comprising the total of the various kinds of capital stock. The excess of the assets over the liabilities, constituting the proprietorship, is broadly speaking, composed of just two items, viz., capital stock and surplus. Ordinarily, the determination of the part comprising capital stock is not difficult. However, under some of the no-par value stock laws, the directors are given wide powers over the contributed capital and may divide it in almost any way they choose between capital stock and surplus, with the sole restriction that contributed capital once allocated to capital stock may not thereafter be allocated to surplus, although they may allocate at any time part or all of the surplus to capital stock. In the case of par value stock, surplus can be converted into capital stock only by means of a stock dividend.

For the sake of its proper management, surplus is usually divided into several classes. Thus, there are earned and capital surplus, appropriated and free surplus, revaluation or reappraisal and donated surplus, reserves, etc. These will now be explained. In doing so, consideration must first be given to the various sources of surplus.

Sources of Surplus.—The chief sources of surplus may be summarized briefly as follows:

1. Net profits left in the business.
2. Surplus contributed by owners, usually booked as Premium on Capital Stock.
3. Profit arising from sale of capital assets and carried directly to surplus.

4. Gifts and donations.
5. Revaluation of assets.
6. Miscellaneous.

In corporation accounting, it is customary to transfer to Surplus account the net profit for the period as determined by the Profit and Loss account, and then to make out of surplus whatever distributions or appropriations of profit may be desirable or necessary. Hence, the net profits comprise the usual and almost always the main source of surplus. Certainly from them comes the major part of earned surplus.

In the organization of a new corporation, the capital contributed is sometimes more than the par value of the stock issued for it. Such excess is usually treated as premium on capital stock, although, particularly in banks and other financial corporations, it may be designated at time of subscription as contributed surplus. In this way such corporations have a sounder financial status and credit standing from the start than if the net worth consisted only of capital stock.

The profit arising from the sale of fixed assets—frequently termed capital assets, because usually acquired out of invested capital—is not an operating profit. It should not, therefore, be handled at time of periodic summaries through the Profit and Loss account, although it is sometimes shown in a final section of that account where it may be segregated from operating profits. The usual procedure, however, is to transfer such profit directly to Surplus account. When a plant or office building appreciates greatly in value with the growth of the community, it may be desirable to dispose of it and seek a less expensive but equally satisfactory location. This source of profit may not be used again during the life of the business. It is a realized profit but not one from normal operations. The small profits and losses realized as an incident to the disposal of worn-out or obsolete equipment, being of more or less regular occurrence, are usually handled in the non-operating section of the Profit and Loss account at time of closing the books.

Gifts and donations are of various kinds and may be classified as gifts from owners and gifts from outsiders. Treasury stock donated is a typical example of the former, and the dona-

tion of a factory site by a municipality or local chamber of commerce, as a bid or bonus to secure new businesses, is an example of the latter. A gift results in an increase of proprietorship and is usually booked under an appropriate title indicative of the purpose of the gift, such as Donated Working Capital, Surplus from Donated Land, etc. A gift of capital stock to be resold for raising working capital is not looked upon as realized surplus until the donated stock is sold as, in that way, a cash or market valuation is placed on it. In the case of a gift of land, as soon as the terms of the gift are met and title to the land passes to the donee, the surplus is realized and its value or amount is determined by an independent—i. e., an outsider's—appraisal.

While it is the usual practice to carry plant and other fixed assets on the books at cost less depreciation, there are circumstances under which it may be desirable to show their present appraised value. To secure adequate fire insurance coverage, the present value must be known. In the case of a public utility company whose rates of charge for service are based by law or legal precedent on an adequate return on the present value of its property used in the pursuance of its business, it is usually desirable that the books reflect the appraised value of the property used as a basis at the time a rate is determined. When fixed property is used as security for a bond issue, it is usually desirable that its present appraised value be shown on the books. If the reappraisal shows present values in excess of book values, the charge to the asset accounts to bring book values in accord with appraised values will be offset by a credit to an appropriate surplus account such as Reappraisal Surplus. Such surplus is not usually considered as realized.

Miscellaneous sources of surplus comprise such transactions as: forfeiture of partially paid stock subscriptions; profits arising from dealings in the company's own securities; collection of insurance on the life of a deceased officer where the amount collected exceeds the premiums paid for it; assessments levied against stockholders—and comprising additional capital contributions—to prevent the company's bankruptcy, to equalize claims of various classes of creditors and owners in the case of a reorganization, or for other purpose; etc. Under this head should

also be mentioned those extraordinary charges and credits which are often closed directly to Surplus account. Losses from fire, flood, strike, or other casualty, and all those adjustments made during the current period applicable to previous periods, such as under- or over-valuation of inventories, depreciation estimates, etc.—all these, relating to previous periods, or not equitably to be charged or credited in total to the current period, are closed directly into Surplus.

Classes of Surplus.—There are three main classes of surplus, viz., capital, appropriated, and free. Capital surplus represents that portion of surplus which properly constitutes a part of the permanent capital of the company. Usually its source indicates whether or not it should be allocated to this class. Thus, premium on capital stock, originally contributed surplus, stock assessments, profits from sale of capital assets, surplus from gifts, and reappraisal surplus, and other similar items are usually classified as capital surplus.

In the management of the finances of a corporation, it may be desirable to retain profits in the business for specific purposes. It was seen in Chapter 27 that bondholders in their contract with the corporation may demand not only that a sinking fund be created as a means of paying off the bonds as they mature but that such fund be created out of profits, thereby safeguarding the lender by assuring him that the company will strengthen its financial structure through the retention of profits for use in the business. Such a Sinking Fund Reserve is a part of surplus but is appropriated during the life of the bonds to a specific purpose. The company may of its own volition appropriate profits for specific purposes. Thus, in contemplation of a future need of increased plant facilities, it may provide for financing such expansion through the retention of profits. These might be labeled "Building Fund Reserve." It should be noted that the Sinking Fund Reserve is usually a contractual obligation—surplus appropriated under contract—whereas the Building Fund Reserve is a voluntary appropriation.

Free or unappropriated surplus is usually all other surplus. It is neither capital surplus nor appropriated to other specific purposes, either contractually or voluntarily. It is the portion

available for dividends or other corporate purposes. It usually is earned surplus as distinguished from the other sources of surplus.

Surplus or profit is said to be realized when the corporation need do nothing further to enjoy the benefit of it. Thus, surplus from net earnings, premium on capital stock sold, assessments paid in, profit from sale of capital assets, and other similar items comprise realized profit. The surplus brought on the books from treasury stock when donated is not realized profit, for the stock must be sold before the company can receive any benefit from it. Similarly, reappraisal surplus is not realized profit. While the company may seem to be benefiting from the use of the reappraised property, the benefit arising from the excess of appraised value over book value is not a usable benefit until the property is sold and the funds arising therefrom become available for other purposes. The point at which profit is realized is oftentimes a vexed and important problem, as the declaration of dividends out of unrealized profits is not considered proper.

Availability of profits for dividend purposes is also a vexed problem which must be viewed both from the standpoint of a sound and proper financial policy and from its legal aspects. Surplus may be available legally for dividends but it may not be desirable from a financial standpoint so to use it. Court decisions have frequently held that some of the items classified above as capital surplus are available for dividends. Thus, the use of a reappraisal surplus as the basis for a stock dividend is frequently justified. The classification of surplus given above follows, therefore, a conservative financial policy rather than a strictly legal status of the various items.

Surplus and Other Reserves.—Surplus appropriated to specific purposes is usually transferred to appropriate reserve accounts. It is evident, therefore, that the true surplus or profits reserve is created by a debit to Surplus. Reserve for Sinking Fund, thus, is a portion of the Surplus account transferred to the Reserve account, which by its title shows that it has been appropriated for the purpose of building up a sinking fund for the retirement at maturity of funded debt.

Surplus reserves are to be distinguished carefully from valuation reserves, such as the Reserve for Doubtful Accounts and the various Depreciation Reserves. These are created by charges to expense accounts, such as Bad Debts and Depreciation Expense. They are offset accounts, the purpose of which is to adjust the values of the corresponding assets accounts.

The Surplus Statement.—Balance sheets drafted for publication are usually condensed (see page 442). On such statements the item, Surplus, is seldom shown in detail, the one amount including capital, appropriated, and free surplus. In an established business, capital surplus seldom changes from one period to another, excepting when a reappraisal of fixed assets or some other similar transaction, usually of infrequent occurrence, takes place. The earned surplus, however, from which appropriations

JACKSON & EDWARDS, INCORPORATED
STATEMENT OF EARNED SURPLUS, December 31, 1929

Balance of Surplus as on December 31, 1928			$75,431.20
Adjustments applicable to previous periods:			
Additions:			
Items omitted from inventory		$ 1,379.40	
Deductions:			
Items wrongly included in inventory	$ 527.50		
Underestimate of depreciation	735.00	1,262.50	
Net Increase			116.90
True Surplus as on December 31, 1928			$75,548.10
Strike costs this period			3,425.80
Balance			$72,122.30
Net Profits for the period			23,679.20
Amount available for appropriation			$95,801.50
Appropriations of Surplus:			
Sinking Fund Reserve		$ 7,500.00	
Dividends:			
Preferred	$ 5,000.00		
Common	10,000.00	15,000.00	22,500.00
Net Balance of Surplus as on December 31, 1929			$73,301.50

Form 49a. Surplus Statement

are made, may have many adjustments during the period. In order to show the detailed changes in this surplus, use is made of a surplus statement. This statement, together with that of profit and loss, provides the officers and executives with full information as to changes—other than capital stock—which have taken place in net worth during the period. The surplus statement is simply a transcript of the Surplus account, the data being rearranged to bring out significant facts. The illustration in Form 49a above is typical.

Surplus on the Balance Sheet.—As stated above, the published balance sheet seldom gives but the one item of surplus. For internal use, however, full detail should be given, either on the face of the balance sheet or by means of a separate schedule or statement similar to the form given above, excepting that it will cover all classes of surplus. If shown in detail on the balance sheet, Form 49b on page 427 is a typical set-up for the net worth section.

Surplus on the Ledger.—The ledger should carry whatever surplus accounts are necessary to give a proper segregation of the various classes. Titles for the various surplus accounts should be chosen carefully to indicate accurately the exact nature of the surplus recorded therein. Examples of specific titles have already been given in the previous discussion. On the ledger there is also usually a Surplus account. Probably Earned Surplus would be a title better indicative of its content. The balance of Profit and Loss is closed into this account and out of it are made the necessary appropriations for various purposes. The balance of the account shows the amount still available for appropriation, although a sound fiscal policy may not permit a distribution of the entire amount. However, it is to this account that directors and owners look for information relative to the surplus available for dividends. On the balance sheet these various Surplus accounts are classified and shown as indicated on the following page.

Dividends.—In *computing* the profits of a corporation, no distinctive items come up for consideration, excepting bond interest which must be adjusted on account of amortization of bond

Net Worth

CAPITAL STOCK:					
Preferred				$150,000.00	
Common				100,000.00	$250,000.00
SURPLUS:					
Capital:					
(Give detail)				$ 75,000.00	
Appropriated:					
(Give detail)				25,000.00	
Unappropriated:					
Balances as on—(beginning of period)			$ 65,000.00		
Credits (or Charges) direct to Surplus:					
(Give detail)			1,500.00		
Net Profit for period			42,000.00		
Total available Surplus			$108,500.00		
Deduct:					
Reserves:					
(Give detail)		$ 5,000.00			
Other appropriations:					
(Give detail)		4,000.00			
Dividends:					
Preferred					
6%	$ 9,000				
Common					
10%	10,000	19,000.00	28,000.00		
Balance as on—(end of period)				80,500.00	
TOTAL SURPLUS					180,500.00
TOTAL NET WORTH					$430,500.00

Form 49b. Showing Surplus on Balance Sheet

premium or discount. When the period's profits have been computed and transferred to Surplus, the various contractual and voluntary appropriations are made, after which the amount ordinarily available for dividends is determinable. If the books have carried a proper classification of surplus, whereby the various surplus account titles indicate the class to which they belong, the Surplus account itself will, after the different appropriations have

been made, show by its balance the amount available for dividends. In the management of Surplus, it is not the usual policy to distribute the entire amount available. Rather some should be retained in the business until, at least, a sufficiently large amount has been stored up to assure a fairly regular dividend during periods of poor business as well as when business is prosperous.

A business is operated for the benefit of its owners, to whom the profits belong. In the case of a corporation, before the owners may secure any of the profits, a formal declaration of dividends must be made by the board of directors. During the term of its election, the board is supreme in its management of the business. It is intimately in touch with the condition of the business. It knows the needs of the corporation and its obligations and must provide for them. If, after considering all the circumstances, it decides that some or all of the profits should be divided among the shareholders rather than be retained in the business for purposes of expansion, it meets in regular session and passes a formal dividend resolution.

Ultimate Control of Stockholders.—Thus it is seen that the board of directors is supreme during the period of its incumbency. Its actions are, however, subject to the review of the stockholders at their periodic meetings, which are usually held annually. If their policies are not favored by the shareholders, a new board, presumably one which will carry out the will of the majority of stockholders, is elected.

Dividends Out of Profits Only.—Except in the case of corporations owning and operating wasting assets such as oil wells, mines, timber lands, etc., which are depleted by the very operation of the company, it is forbidden by law to pay dividends out of the capital of the corporation. Such payments would encroach upon the net assets of the organization and thereby weaken the creditors' security for the payment of their claims. Dividends need not be paid out of the profits of the current year, provided the undistributed profits of former periods are still available.

Distribution of Dividends.—After the declaration of a dividend, provision must be made to pay it. The persons entitled to

receive it must be determined. To do this, particularly in a corporation the stock of which is widely held and traded in, it is necessary to name a date on which the stock books will be closed for this purpose and only those whose names appear as owners on that date will receive the dividends. Hence, a dividend resolution carries three important dates, viz., the date of the declaration, the date of closing the stock books, and the date of payment. The resolution may state that a dividend of, say, 6% is declared upon the common stock of the company payable on, say, January 25 to stockholders of record on, say, January 5. This gives twenty days in which to make up the list of stockholders, determine the amount due each, and write the dividend checks. After the date of record, stocks are said to be ex-dividend, i. e., if transferred the new owner is not entitled to the dividend.

As soon as a dividend is declared, an entry is made in the general journal transferring the amount of profits distributed thereby to a Dividends Payable account, the entry being a debit to Surplus and a credit to Dividends Payable. The dividend is always based on the amount of outstanding stock, not on the unissued or treasury stock which are not entitled to dividends. It is reckoned either as a percentage of the par value of each share, as a 6% dividend, or as so many dollars or cents per share, e. g., $4 or 10 cents per share. With no-par stock, the latter method is used.

The following illustration will show the necessary entries for surplus appropriations and dividends:

PROBLEM. Assume that the net profits of Jackson & Co. are $25,000. The directors declare an 8% dividend on the outstanding capital stock of $100,000, and order $5,000 to be transferred to a reserve for buildings and $7,000 to a reserve for the cancellation of a bond issue.

Profit and Loss	25,000.00	
Surplus		25,000.00
To transfer net profits to Surplus.		
Surplus	20,000.00	
Dividends Payable		8,000.00
Building Fund Reserve		5,000.00
Sinking Fund Reserve		7,000.00
To appropriate profits as per the resolution of the Board of Directors.		

Dividend Liability.—The student should note that the effect of a dividend declaration is to change a portion of the proprietorship into a liability. Surplus is decreased and liabilities are increased. The liability so created ranks with other liabilities, i. e., the assets of the corporation may be used to pay the liability to its stockholders equally with the payment of liabilities to outside creditors. The dividend liability may be met in several ways, the chief of which are: (1) by payment in cash or (2) in stock of the company in accordance with the dividend resolution. The payment of such a dividend is recorded by the cancellation of the dividend liability, as follows:

Dividends Payable	8,000.00	
Cash (or Capital Stock)......		8,000.00

Where there is more than one class of stock outstanding, it is customary to keep separate dividend accounts with each class.

Closing the Books.—Excepting as to the points discussed previously, which relate chiefly to surplus, reserves, and dividends, the method of adjusting and closing the books of the corporation follows much the same procedure as has already been explained. In connection, however, with manufacturing, regardless of the kind of ownership organization involved, some points of accounting practice may well be discussed at this time. These concern the departmental or functional distribution of expenses, short fiscal periods and closing procedure therefor, and condensed financial statements and supporting schedules. These will be considered in turn.

Departmental Distribution of Expenses.—The importance of the burden element in factory accounting was pointed out in Chapter 28 where an explanation was given of some of the methods used in finding the cost of the product manufactured, both total cost and cost per unit. Determination of the cost per unit necessitates an accurate distribution of the burden factor to the various factory departments and to the different kinds and units of product turned out. The careful allocation of the various cost elements to the object benefited is not confined to factory or cost accounting but is a principle common to all scientific

accounting. For example, in department store accounting, it is desirable to determine not only the gross profit on each department but also, by means of a careful allocation to each department of a pro-rata share of the general expenses, to determine the net profit on each. In allocating a share of any expense to departments or to product, an equitable basis must be used. Thus, in distributing rent to departments, the square feet of floor space in each department or its relative value might provide the basis; in distributing light and power, the amount used by each department as shown by departmental meters would provide the basis; for fire insurance cost, the comparative value basis; for telephone service, the average number of calls chargeable to each department; for the cost of the employment department, the average amount of the departmental payrolls; etc. Some equitable basis can usually be found on which all general expenses may be allocated to department, product, or to the service benefited by such expenses.

So, also, in drafting the profit and loss statement—and in closing the books—scientific accounting requires that each of the major functional departments or activities of the business be charged with its pro-rata share of many of the so-called *general* expenses. Thus, in a manufacturing business those general expenses such as rent, depreciation, maintenance and repairs, insurance, taxes, light, heat, and power, etc., should be distributed on some equitable basis, in accordance with the benefit received by each, over the factory, the sales department, and the general office. Reference to the illustrative problem on page 440, will indicate how this is accomplished in the accounts and operating statement.

Short Fiscal Periods—Accrual Basis.—As business organization and activity become more complicated, as competition grows sharper, the need increases for information as to financial status at frequent intervals. No longer is it sufficient to secure such information once in six months or a year. Quarterly, and even monthly results are becoming quite common. This, of course, increases the accounting work and complicates it; for not

only is it desirable to have monthly results, but cumulative results for "the year to date," for the quarter, half-year, and the year are demanded. In many businesses, particularly those, such as the financial and service type, in which usually the determination of results is not in large measure dependent on accurate inventory valuations, the books of account are actually closed every month and summarized through the Profit and Loss account. This, of course, involves a great amount of bookkeeping. More often, securing this information is best accomplished through the medium of the work sheet, by means of which financial statements for any desired period can be drafted without the need of actually closing the books. This results in a great saving of labor and makes possible to a greater extent than would otherwise be, the use of roughly estimated data for the short period, whereas for the longer period more exact data, based on physical inventories, must be used. Thus the ledger is allowed to accumulate its data for a year without formal closing, at which time the year's results, on an accurate basis, are made up, the interim statements having been made up from the work sheet.

The drafting of monthly statements necessitates the accurate proration of expense and income over the twelve months of the year. Because there is not an even flow of the incurrence of many of these expenses nor of the receipt of some of the income items—major repair costs may be incurred only a few times during the year and income from bond investments may be received only every six months—it becomes necessary to estimate many of the items of the year's expense and income and prorate them month by month. This is sometimes called the "accrual" method of accounting, although that term may be used with equal propriety to describe any method which at the close of the period takes cognizance of accrued and deferred items, as distinguished from a "cash" basis or method which considers no item an expense until paid for, at which time it is allocated in its entirety to such period, nor any item as an income until received in cash, when it is considered as belonging to that period.

From an accounting standpoint, the distinctive features of tbe accrual method are comprised under the four heads: accrued

income; deferred or prepaid expense; accrued expense; and deferred income.

Income under the Accrual Method.—Both accrued and deferred income will be discussed under this head. The item, accrued income, not yet recorded at the close of the fiscal period, arises because in accordance with business custom and practice it is not received till the close of the term during which it is earned. Deferred income, on the other hand, arises because it is received in advance of the period of its being earned.

Accrued Income. In booking accrued income, an estimate is first made of the yearly amount of each item of income which cannot be considered as earned solely in the month when the transaction takes place. Thus, income from investments accrues day by day but it may actually be received only a few times during the year. At the close of each month, therefore, one-twelfth of the total estimated yearly amount is brought on the books as a charge to Accrued Income account and a credit to an appropriate income account. This same procedure is followed at the close of each month. When the income is actually received, it is credited to the Accrued Income account and not to the income account. The Accrued Income account is in the nature of an account receivable and will be in balance at the end of the year if all the estimated income has actually been received by that time. The Accrued Income account is set up in the ledger among the current assets, and any balance in it at the close of the period will be shown in the balance sheet. Sometimes the title "Accrued Accounts Receivable" is given to this account.

This method of handling accrued income cannot usually be employed advantageously for all kinds of income. For interest, royalty, and commission income, and other similar kinds, the "accrual" method is usually desirable for short fiscal period closings. In general, if the period of the accrual and receipt of the income is longer than the fiscal period, the method may well be used. Even here, however, great care must be exercised to make sure that the portion of income belonging to the period in which the payment for the whole amount is received is brought onto the books as accrued income. Thus, if interest income

which has been accruing for several months is finally received on the twentieth day of the month, it will be necessary to set up the accrued interest for the twenty days of the current month.

Deferred Income. Income, when received in advance of its being earned, is credited to the account, Deferred Income. The title "Unearned Income" is sometimes given to this account. This account reflects the liability of the current period to the future periods which will render the service entitling them to the income. It also reflects the liability of the business to render to the customers, i. e., the payers or contributers of the income, the service or commodity paid for by them in advance. The account is a true liability account and will be carried in the ledger in the liability section. At the end of each month, or other fiscal period, the portion of this income estimated as equitably belonging to the current period will be transferred from the Deferred Income account to an appropriate income account set up in the temporary proprietorship section of the ledger. Thus, in a bank where the interest on loans is usually collected in advance, the monthly transfer entry would be:

Deferred Income (or Unearned Interest)....	xxx	
Interest Income		xxx

In a periodical publishing business, a similar entry would be:

Deferred Income (or Advance Subscriptions)	xxx	
Subscription Income		xxx

Expense under the Accrual Method.—Both accrued and deferred or prepaid expenses will be considered here.

Accrued Expense. For expenses where the period of accrual, before settlement is made, is for more than one month—as is the case with interest on bonds payable or with royalty expense paid every six months or once a year—at the end of each month an estimate is made of the amount accrued during the current month. The following entry, in the case of royalties, is made of this amount:

Royalty Expense	xxx	
Accrued Expenses		xxx

At the end of the contract period when payment is made, Accrued Expenses account will be charged, no entry being made at that time to Royalty Expense account. As in the case of accrued income explained above, care must be used to make sure that the expense for the entire period has been recorded in the Accrued Expense account before entry is made of the payment.

For those expenses which are usually paid every month, such as payroll, salaries, etc., the methods of Chapter 20 are best used for handling any accruals in them.

Prepaid Expense. Nothing needs to be added to the explanation of this type of expense adjustment given in Chapter 20, page 269, where the two-account method is described. In order to facilitate making the estimate of the amounts of prepaid expenses chargeable against each current period, an analysis book or register is used for any of these expense items which lend themselves to such analysis. For example, to compute the amount of expired fire insurance each month, the various insurance policies are registered or listed one under the other and the premium cost of each per month is computed and extended by months over the life of the policy. Form 50 illustrates how the register is operated.

Methods of Handling Deferred and Accrued Items.—It is thus seen that there are several different methods available for handling income and expense adjustments. The method to be employed in a given business depends somewhat on the size and efficiency of the staff of the accounting department. In a small business, probably the one-account method explained in Chapter 11 is to be preferred as it entails the least labor. In larger businesses, where a physical separation of the asset and liability elements from the income and expense elements is desirable, the two-account method of Chapter 20, with the refinements explained above, will serve best. Whatever the method adopted, it should be so operated that the regular routine employed for recording the receipt of income or the payment of expense need not be changed for handling the accrued or deferred portion. It is for this reason that the reversing entry is necessary under the

INSURANCE REGISTER

	DATE		POLICY NO.	NAME OF COMPANY	TERM	COST PREMIUM		DISTRIBUTION									
								Jan.		Feb.		Mar		Apr		May	
	19— Jan.	15	45,792	Hartford Fire	1 yr.	180	—	7	50	15	—	15	—	15	—	15	—
	Feb.	20	7,963	Globe & Rutgers	2 yrs.	540	—			7	50	22	50	22	50	22	50
	Mch.	10	18,471	New York Fire	5 yrs.	1,260	—					14	—	21	—	21	—
			Monthly Charge to Insurance Expense					7	50	22	50	51	50	58	50	58	50

Form 50. Insurance Register

two-account method. Otherwise, in the case of an accrued payroll, for example, the accrued portion of which is set up as a credit in the Accrued Expense account, when the first payroll is paid in the new period, the part of the payment which settles the Accrued Expense liability would have to be charged to Accrued Expense account and the balance of the payment would be charged to Payroll account—this procedure being a departure from the routine followed for all other payroll payments which are charged in total to Payroll account. The reversing entry under the two-account method or the inventory entry used with the one-account method make possible a uniform charge to Payroll account for all payroll payments. The adoption and use of a uniform routine for recording all transactions of the same kind is always desirable and eliminates one fruitful source of error.

Condensed Financial Statements—With Schedules.—Where a greatly detailed classification of accounts is used in order to collect the information needed by management, it is usually desirable in drafting the financial statements to combine or condense under suitable titles several accounts of the same class. Thus, instead of listing all of the fixed asset accounts on the balance sheet, they may usually be set up under the title, Plant and Equipment. All of the prepaid expense items may be listed under the single title, Prepaid Expenses. In the profit and loss statement, each of the main sections or classes may well be listed under a single title. Thus, instead of the detailed selling items, their total may be shown under the title, Selling Expenses.

In drafting statements for publication, it is considered good practice to use the condensed form, as otherwise competitors may secure information which it is not desired they should have. For internal use by the various executives, the condensed statements should be supported by schedules or lists giving the detailed accounts which there appear under group titles. These schedules should be suitably indexed to give proper cross reference to the main statement. In presenting the two main financial statements, the balance sheet and the profit and loss statement, it is customary to label the one, Exhibit A, and the other, Exhibit B.

Kendall Manufacturing Co., Work Sheet, January 31, 19—

Account Title	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Manufacturing Dr.	Manufacturing Cr.	Profit and Loss Dr.	Profit and Loss Cr.	Balance Sheet Dr.	Balance Sheet Cr.
Cash	12,000.00								12,000.00	
Accounts Receivable	75,000.00								75,000.00	
Res. for Doubtful Accts.		1,500.00		(10) 2,962.50						4,462.50
Fin. Goods Inv., Jan. 1	25,000.00			(9) 25,000.00						
Goods in Pro. Inv., Jan. 1	20,000.00			(2) 25,000.00	20,000.00	25,000.00				
Raw Mat. Inv., Jan. 1	30,000.00			(6) 30,000.00						
Investments	15,000.00								15,000.00	
Interest Income Accrued	150.00		(11) 75.00						225.00	
Factory Supplies	4,000.00			(4) 4,000.00						
Office Supplies	3,000.00			(5) 3,000.00						
Insurance Unexpired	4,800.00			(12) 300.00					4,500.00	
Plant and Equipment	1,800,000.00								1,800,000.00	
Depr. Res. Plant & Equip		36,000.00		(17) 12,000.00						48,000.00
Goodwill	50,000.00								50,000.00	
Accounts Payable		60,000.00								60,000.00
Interest Cost Accrued		281.25		(15) 187.50						468.75
Bonds Payable		75,000.00								75,000.00
Discount on Bonds	4,000.00			(16) 37.50					3,962.50	
Capital Stock		1,000,000.00								1,000,000.00
Premium on Capital Stock		12,500.00								12,500.00
Surplus		818,287.50								818,287.50
Sinking Fund Reserve		10,000.00								10,000.00
Sales		600,000.00						600,000.00		
Sales Returns & Allow.	7,500.00						7,500.00			
Raw Materials Purchases	195,000.00			(7) 195,000.00						
Freight-In on Purchases	5,000.00			(8) 5,000.00						
Direct Labor	175,000.00		(13) 4,000.00		179,000.00					
Indirect Labor	50,000.00		(14) 1,000.00		51,000.00					
Salaries—Factory	10,000.00				10,000.00					
Plant Repairs & Main.	3,000.00			(20) 3,000.00						
Light, Heat, and Power	7,000.00			(19) 7,000.00						
Sundry Factory Expense	8,000.00		(4) 3,000.00		11,000.00					
Sales Salaries	75,000.00						75,000.00			
Advertising	9,000.00						9,000.00			
Sundry Selling Expense	10,000.00						10,000.00			
Office Salaries	15,000.00						15,000.00			
Sundry Office Expense	2,000.00		(5) 2,500.00				4,500.00			
Sales Discount	3,000.00						3,000.00			
Interest Cost	18.75						18.75			
Purchase Discount		3,900.00						3,900.00		
	2,617,468.75	2,617,468.75								

Inventories:										
Fin. Goods, Jan. 31			(1) 30,000.00						30,000.00	
Goods in Proc., Jan. 31			(2) 25,000.00						25,000.00	
Raw Materials, Jan. 31			(3) 22,000.00						22,000.00	
Factory Supp., Jan. 31			(4) 1,000.00						1,000.00	
Office Supp., Jan. 31			(5) 500.00						500.00	
Cost of Raw Materials Used			(6) 30,000.00	(3) 22,000.00	30,000.00	22,000.00				
			(7) 195,000.00		195,000.00					
			(8) 5,000.00		5,000.00					
Cost of Goods Sold			(9) 25,000.00	(1) 30,000.00			25,000.00	30,000.00		
Depreciation:										
Depreciation Plant and Equipment			(17) 12,000.00	(18) 12,000.00						
Bad Debts:										
Bad Debts			(10) 2,962.50				2,962.50			
Income Earned:										
Interest Income				(11) 75.00				75.00		
Expenses Incurred:										
Bond Interest Cost			(15) 187.50				187.50			
			(16) 37.50				37.50			
Insurance			(12) 300.00	(21) 300.00						
Accrued Expenses:										
Direct Labor				(13) 4,000.00						4,000.00
Indirect Labor				(14) 1,000.00						1,000.00
Factory Expense:										
Depreciation			(18) 9,000.00		9,000.00					
Light, Heat, and Power			(19) 5,600.00		5,600.00					
Plant Repairs & Maint.			(20) 2,250.00		2,250.00					
Insurance			(21) 150.00		150.00					
Selling Expenses:										
Depreciation			(18) 1,500.00				1,500.00			
Light, Heat, and Power			(19) 490.00				490.00			
Plant Repairs & Maint.			(20) 375.00				375.00			
Insurance			(21) 120.00				120.00			
General Office Expense:										
Depreciation			(18) 1,500.00				1,500.00			
Light, Heat, and Power			(19) 910.00				910.00			
Plant Repairs & Maint.			(20) 375.00				375.00			
Insurance			(21) 30.00				30.00			
					518,000.00	47,000.00				
Cost to Manufacture						471,000.00	471,000.00			
							628,506.25	633,975.00		
Net Profit							5,468.75			5,468.75
	2,617,468.75	2,617,468.75	381,862.50	381,862.50	518,000.00	518,000.00	633,975.00	633,975.00	2,039,187.50	2,039,187.50

All schedules supporting balance sheet items are then labeled Schedule A-1, Schedule A-2, etc. The profit and loss schedules are similarly labeled, Schedule B-1, etc. The student is referred to the illustrations on pages 442–446 for forms of condensed statements and supporting schedules.

Illustration.—To show the manner of adjusting and closing the books in accordance with some of the principles enunciated in this chapter, an example taken from the books of a manufacturing corporation is given.

The trial balance below is taken from the books of the Kendall Manufacturing Co. for the month ending January 31, 19—. The company's fiscal period is one month and the books are kept on an accrual basis.

Cash	$ 12,000.00	
Accounts Receivable	75,000.00	
Reserve for Doubtful Accounts		$ 1,500.00
Finished Goods Inventory, January 1	25,000.00	
Goods in Process Inventory, January 1	20,000.00	
Raw Materials Inventory, January 1	30,000.00	
Investments	15,000.00	
Interest Income Accrued	150.00	
Factory Supplies	4,000.00	
Office Supplies	3,000.00	
Insurance Unexpired	4,800.00	
Plant and Equipment	1,800,000.00	
Depreciation Reserve Plant and Equipment		36,000.00
Goodwill	50,000.00	
Accounts Payable		60,000.00
Interest Cost Accrued		281.25
Bonds Payable		75,000.00
Discount on Bonds	4,000.00	
Capital Stock		1,000,000.00
Premium on Capital Stock		12,500.00
Surplus		818,287.50
Sinking Fund Reserve		10,000.00
Sales		600,000.00
Sales Returns and Allowances	7,500.00	
Raw Materials Purchases	195,000.00	
Freight-In on Purchases	5,000.00	
Direct Labor	175,000.00	
Indirect Labor	50,000.00	
Salaries—Factory	10,000.00	
Plant Repairs and Maintenance	3,000.00	

Light, Heat, and Power	7,000.00	
Sundry Factory Expense	8,000.00	
Sales Salaries	75,000.00	
Advertising	9,000.00	
Sundry Selling Expense	10,000.00	
Office Salaries	15,000.00	
Sundry Office Expense	2,000.00	
Sales Discount	3,000.00	
Interest Cost	18.75	
Purchase Discount		3,900.00
	$2,617,468.75	$2,617,468.75

The data needed at the end of the month, January 31, for adjusting and closing the books are listed below:

1. Inventories:

Finished Goods	$30,000.00
Goods in Process	25,000.00
Raw Materials	22,000.00
Factory Supplies	1,000.00
Office Supplies	500.00

2. Estimate of doubtful accounts: ½ of 1% of net sales.
3. Estimate of depreciation of plant and equipment: At the rate of 8% per year, to be allocated ¾ to manufacturing and ⅛ each to selling and general office.
4. Accrued interest income amounts to $75.
5. Unexpired insurance is $4,500.
6. Accrued direct labor is $4,000, indirect labor $1,000, and bond interest cost $187.50.
7. Prorate the following expenses departmentally:
   (a) Light, heat, and power, 80% to factory, 7% to selling, and 13% to office.
   (b) Plant repairs and maintenance, ¾ to factory and ⅛ each to selling and office.
   (c) Insurance, 50% to factory, 40% to selling, and 10% to office.
8. Amortize bond discount $37.50 for the month of January.
9. Required:
   (a) Work sheet.
   (b) Condensed balance sheet with supporting schedules.
   (c) Condensed statement of profit and loss with supporting schedules.

Exhibit A

KENDALL MANUFACTURING CO.
BALANCE SHEET
January 31, 19—

Assets			
CURRENT ASSETS:			
Cash		$ 12,000.00	
Accounts Receivable	$ 75,000.00		
Less: Reserve for Doubtful Accounts	4,462.50	70,537.50	
Merchandise Inventories (Schedule A-1)		77,000.00	
Investments		15,000.00	
Interest Income Accrued		225.00	
Prepaid Expenses (Schedule A-2)		6,000.00	$ 180,762.50
FIXED ASSETS:			
Plant and Equipment	$1,800,000.00		
Less: Depreciation Reserve Plant and Equipment	48,000.00		1,752,000.00
OTHER ASSETS:			
Goodwill		$ 50,000.00	
Discount on Bonds		3,962.50	53,962.50
TOTAL ASSETS			$1,986,725.00
Liabilities			
CURRENT LIABILITIES:			
Accounts Payable	$ 60,000.00		
Accrued Expenses (Schedule A-3)	5,468.75	$ 65,468.75	
FIXED LIABILITIES:			
Bonds Payable		75,000.00	
TOTAL LIABILITIES			140,468.75
Net Worth			
CAPITAL STOCK		$1,000,000.00	
SURPLUS (Schedule A-4)		846,256.25	
TOTAL NET WORTH			$1,846,256.25

Form 51. Condensed Form of Balance Sheet

Schedule A-1

KENDALL MANUFACTURING CO.
MERCHANDISE INVENTORIES, January 31, 19—

Finished Goods	$30,000.00
Goods in Process	25,000.00
Raw Materials	22,000.00
Total	$77,000.00

Schedule A-2

KENDALL MANUFACTURING CO.
PREPAID EXPENSES, January 31, 19—

Unexpired Insurance	$4,500.00
Factory Supplies	1,000.00
Office Supplies	500.00
Total	$6,000.00

Schedule A-3

KENDALL MANUFACTURING CO.
ACCRUED EXPENSES, January 31, 19—

Accrued Interest Cost	$ 468.75
Direct Labor Accrued	4,000.00
Indirect Labor Accrued	1,000.00
Total	$5,468.75

Schedule A-4

KENDALL MANUFACTURING CO.
STATEMENT OF SURPLUS, January 31, 19—

Capital:		
Premium on Capital Stock		$ 12,500.00
Appropriated:		
Sinking Fund Reserve		10,000.00
Non-Appropriated:		
Surplus, January 1	$818,287.50	
Net Profit for Period	5,468.75	823,756.25
		$846,256.25

Exhibit B

KENDALL MANUFACTURING CO.
STATEMENT OF PROFIT AND LOSS
For the Month Ended January 31, 19—

Sales	$600,000.00	
Less: Sales Returns and Allowances	7,500.00	
Net Sales		$592,500.00
Cost of Goods Sold (Schedules B-1 and B-1a)		466,000.00
Gross Profit		$126,500.00
Selling Expenses (Schedule B-2)	96,485.00	
General Administrative Expenses (Schedule B-3)	22,315.00	
Financial Management Expenses (Schedule B-4)	6,206.25	
Total Operating Expenses	$125,006.25	
Financial Management Income (Schedule B-5)	3,975.00	
Net Operating Expenses		121,031.25
Net Profit for the Period		$ 5,468.75

Form 52. Condensed Form of Profit and Loss Statement

Schedule B-1

KENDALL MANUFACTURING CO.
COST OF GOODS SOLD
For the Month Ended January 31, 19—

Finished Goods Inventory, January 1	$ 25,000.00
Cost to Manufacture for the Month Ended January 31 (Schedule B-1a)	471,000.00
Total Goods to be Accounted For	$496,000.00
Finished Goods Inventory, January 31	30,000.00
Cost of Goods Sold	$466,000.00

Schedule B-1(a)

KENDALL MANUFACTURING CO.
COST TO MANUFACTURE
For the Month Ended January 31, 19—

Raw Materials:		
Inventory, January 1, 19—	$ 30,000.00	
Purchases	195,000.00	
In-Freight and Cartage	5,000.00	
	$230,000.00	
Less:		
Inventory, January 31, 19—	22,000.00	
Cost of Raw Materials Used in Manufacturing		$208,000.00
Direct Labor		179,000.00
Factory Expenses:		
Indirect Labor	$ 51,000.00	
Factory Supplies	3,000.00	
Salaries—Factory	10,000.00	
Sundry Factory Expense	8,000.00	
Light, Heat, and Power	5,600.00	
Depreciation	9,000.00	
Plant Repairs and Maintenance	2,250.00	
Insurance	150.00	89,000.00
		$476,000.00
Less:		
Increase in Goods in Process Inventory:		
Goods in Process, January 31	$ 25,000.00	
Goods in Process, January 1	20,000.00	5,000.00
Cost to Manufacture		$471,000.00

Schedule B-2

KENDALL MANUFACTURING CO.
SELLING EXPENSES
For the Month Ended January 31, 19—

Sales Salaries	$75,000.00
Advertising	9,000.00
Sundry Selling Expense	10,000.00
Light, Heat, and Power	490.00
Plant Repairs and Maintenance	375.00
Depreciation	1,500.00
Insurance	120.00
Total	$96,485.00

Schedule B-3

KENDALL MANUFACTURING CO.
GENERAL ADMINISTRATIVE EXPENSES
For the Month Ended January 31, 19—

Office Salaries	$15,000.00
Office Supplies	2,500.00
Plant Repairs and Maintenance	375.00
Light, Heat, and Power	910.00
Depreciation	1,500.00
Insurance	30.00
Sundry Office Expense	2,000.00
Total	$22,315.00

Schedule B-4

KENDALL MANUFACTURING CO.
FINANCIAL MANAGEMENT EXPENSES
For the Month Ended January 31, 19—

Sales Discount	$3,000.00
Interest Cost	18.75
Bond Interest Cost	225.00
Bad Debts	2,962.50
Total	$6,206.25

Schedule B-5

KENDALL MANUFACTURING CO.
FINANCIAL MANAGEMENT INCOME
For the Month Ended January 31, 19—

Purchase Discount	$3,900.00
Interest Income	75.00
Total	$3,975.00

CHAPTER 31

BUYING, MANUFACTURING, AND STOCK CONTROL

Importance of Buying.—Buying as a major function in a mercantile concern is intimately related to, and dependent on, the other functions of the business. Buying must always have regard to the sales activities. To buy without reference to the ability to sell is suicidal. Both overbuying—buying more than can be disposed of at a profit—and underbuying—buying less than is needed to meet the sales demand—are conditions to be avoided. Underbuying means a loss of sales. Unless their needs are met promptly in accordance with their orders, customers will go elsewhere. Overbuying means the unnecessary tying up of capital in a stock of goods which increases the possibilities of loss resulting from changes in fashions and the level of prices. Manifestly the ideal situation, so far as the amount of stock carried is concerned, is one in which the least amount of capital is used to provide an adequate stock for meeting the requirements of customers and in which the loss from unsalable stock is reduced to the lowest level.

Many business houses fail to realize the wastes resulting from slow turnovers. The Chamber of Commerce of the United States has called attention to these losses and has analyzed them under the following heads:

1. The unnecessary use of capital in merchandise that could be more profitably employed in other productive sources.
2. The increased cost of borrowed capital, the carrying of larger stocks and their slow turnover, necessitating the borrowing of larger amounts of capital for longer periods.
3. The marking down of the sale price due to the fact that the goods will not move at the higher sale price.

4. An increase in overhead expenses due to the larger storage and display equipment needed for goods and to the costs incident to handling the larger stock, and re-marking the stock when it is necessary to lower sale prices.
5. The loss of prestige and reputation from carrying unstylish and shopworn goods.

Relation Between Buying and Finance.—From what has already been said, it is evident that there is a very necessary relation between the buying policy of a business and its ability to finance purchases. Even though it may be possible to increase sales, unless the business is in a position to finance not only the additional credits extended to customers but also the additional purchases needed to take care of the increased sales, it will not be feasible to pursue a policy of sales expansion and therefore of increased buying. Hence, buying cannot be considered as a business activity by itself, but always as one dependent upon the sales activities and the financial resources of the business.

Organization for Buying.—In large merchandising businesses, the duties and authority of the buying department are not uniform. In some, this department is organized entirely distinct from the selling department; in others (and this is particularly true of the large department stores), the buyer is head merchandise man with control over the selling activities of the business. It is also quite usual for the buyer to be in charge of a given department and his success or failure to be judged by the profits he makes in that department. A profit quota is sometimes assigned to each department, for which the buyer is responsible. In other words, in the management of the buying and selling activities and therefore in the control of his merchandise stock, the buyer is supreme, subject to the general limitations placed by the financial resources at his disposal. Under the control of the buyer, therefore, will be stock clerks, the clerks who mark and re-mark the merchandise, and the sales force. Above and in control of all the departmental buyers is usually an executive or high official of the company whose chief function is to correlate the activities of

the buyers with the concern's general buying, selling, and financial policies.

Characteristics of the Buyer.—To perform his functions properly, the buyer must be a person of broad experience, with a keen sense of values and the marketing possibilities of merchandise. On the buying side, he must have complete information as to the available sources of the merchandise he desires to secure, both in staple and in novelty lines. On the selling side, he must know the demands of his customers and the possibility of creating new demands. The best index of the buying power of his customers is the volume of sales made in previous years. Past performance, considered in connection with general trade conditions and plans for the further development of the business, is the only basis for judging the sales possibilities of the future. He must know the quality of merchandise and the reliability of the people from whom he buys. He must be a keen judge of prices. He must know the financial resources of his own store and strive to secure the best possible credit and discount terms.

Buying Procedure.—In Chapter 16, where the goods invoice is discussed, a typical purchasing procedure is set forth. Here only the chief points in that procedure will be mentioned. In a large establishment, the buying requisition should be the basis of all purchase orders. This is particularly true when the buyer does the buying for several departments. The requisition should be made out in triplicate by the department head, two copies going to the buyer and one being retained in the department. Upon the issuance of the buying order, the second copy of the requisition is returned to the department as evidence that the goods have been ordered.

The purchase orders are made in manifold, the original going to the vendor, one copy to the treasurer to notify him of the future need for funds, one to the controller or accounting department, and one being retained by the buyer as a basis for follow-up. Upon receipt of the invoice, which usually precedes the goods, the buyer compares it with the order and, if it is found correct, he passes it to the accounting department, where it is held until the receiving slip, showing the receipt of goods, is re-

ceived from the receiving room. If the three documents now in possession of the accounting department—namely, the copy of the original order, the invoice, and the receiving slip—agree, the invoice is passed for entry on the books and is filed for payment in accordance with the financial policy of the business. After payment, the invoice with its supporting documents is filed. Great care must be exercised to make sure that an invoice is not put through more than once for payment and that every invoice represents goods properly ordered and actually received.

Requirements of Successful Buying.—Successful buying rests on a knowledge of two things: (1) when to buy, and (2) what to buy. The timeliness of buying has regard rather to the sales requirements than the market possibilities. Goods are bought for the purpose of satisfying needs of customers. A knowledge of the trend of the market is necessary but buying wholly in accordance with market trends too often leads to speculation in merchandise, due weight not being given to the sales requirements. A knowledge of the specific commodities needed to satisfy the requirements of customers, i. e., consumer demand, is equally important. The regular use of the "want slips" of customers calling for goods not in stock is one source of information. The records of the paid "shoppers" as to the commodities and prices of competitors is also some indication.

In answering both these questions, when to buy and what to buy, the records of the business itself should furnish the fundamental information needed to secure a proper control of the movement of merchandise. Some system of perpetual inventory is almost indispensable. In a small business where the buyer, usually the owner, is in intimate contact with all departments, a fairly satisfactory control of merchandise can be secured without a perpetual inventory. In a business of some size, however, the perpetual inventory is an almost absolute essential if movement of stock is to be kept under control.

Control of Merchandise Movement.—The beginning of merchandise control is the fixing of the sales quota, that is, the making of an estimate of sales for the next period. Without a definite goal to be aimed at, control is impossible. Buying and

finance are dependent on it. A knowledge of the stock on hand at any time is needed to determine the buying requirements. Even in a small business, the inventory can at least be estimated on the basis of past performance as to percentage of gross profit and therefore the percentage of cost of goods sold, sometimes called the cost multiplier. The application of this cost multiplier to the sales for the period gives the cost of goods sold, which, subtracted from the opening inventory plus goods purchased, gives an estimate of the goods in stock. A perpetual inventory kept by quantities rather than by values serves the purpose in many establishments. What is known as the "retail system," by means of which the value of the stock on hand can be estimated at any time, is used in many large retail establishments. In addition to, and in conjunction with such a system, the use of commodity control cards, as illustrated in Form 53, gives a sure index of the condition of stock and the movement of merchandise at any time.

The Retail Method of Inventory.—The retail system of inventory is based on the carrying of all goods purchased at a retail sale price as well as at cost price. In the financial records purchases are, of course, always booked at cost. A stock record is kept, however, which carries purchases at retail sale price as well as at cost price. The principle of the perpetual inventory under this method is shown by the fundamental formula:

Opening Inventory + Purchases − Cost of Goods Sold = Final Inventory

It is apparent that if all the values on the left side of the equation are retail sale values, the right side of the equation represents the final inventory valued at the retail sale price. Thus, if the opening inventory for use in the stock record is set up at the marked sale price, and purchases are similarly set up, the subtraction of the sales to date from the sum of the opening inventory and purchases gives the amount of stock on hand valued at the sale price.

In order to reduce an inventory, valued at retail sale price, to a cost basis, the per cent of mark-on of the cost price to give the original sale price must be applied. This per cent is based on the sale price and not the cost price, being determined by dividing the difference between sale and cost price (that is, the gross profit

figure) by the sale price. Thus, a commodity costing \$60 and marked to sell at \$100 will, if sold, yield a gross profit of \$40 which, given in terms of the sale price, is a 40% gross profit. This 40% is spoken of as the "mark-on per cent." The cost is, therefore, the difference between 100% and the per cent of mark-on, in this case 60%. That is, 60% of the sale price gives the cost price. This 60% is the cost multiplier.

Accordingly, to reduce the inventory value at selling price to a cost price basis, it must be multiplied by 100% minus the per cent of mark-on, i.e., by the cost multiplier.

The use of the retail method is thus seen to require a stock record from which the goods on hand as valued at selling price can be determined almost instantly and from which the per cent of mark-on can also be determined. In principle the method is simple. In practice it must be operated very carefully, else unreliable results will be secured. It seldom happens that merchandise will always move at the marked sale price. Adjustments are necessary. On an upward market, perhaps, a higher price can be secured than the marked price. On a downward market or in order to move certain colors and styles, it may be necessary to mark down from the original sale price. The fluctuations arising from mark-ups and mark-downs are treated in Chapter XI of Volume III and will not be discussed here. Some applications of the retail method will be explained, however.

Some Buying Records and Their Use.—The chief purpose of the main records kept in business is the securing of control over the activities of the business. The control over merchandise must always be based on records. The first step in securing the necessary control is a proper departmentization of stock. Analysis of purchases and sales by departments is fundamental. In addition, a knowledge of what others in the same line are doing serves as a criterion by which to judge one's own results. Trade associations and research bureaus are giving invaluable information by furnishing standards for judging results.

Three major problems from the buyer's standpoint are always met. They are not independent problems but, as indicated above, are intimately related to selling and financial policies. These

problems are: (1) the determination of the average stock to be carried; (2) the determination of the buying quota for a given period; and (3) the determination of the "open-to-buy" amount at a given time. Too often these matters are decided in a haphazard fashion. Only by means of a careful analysis of all the factors and the results obtained in the various departments as compared with average or standard results can a sound basis of stock control be secured.

Average Stock to be Carried.—Stock control rests, in the first place, on estimated requirements for the future. Estimates for the future must always be based on past performance, as modified by present market conditions and contemplated changes in basic merchandising policies. In estimating the amount of stock to be carried, the volume of expected sales must be taken into account. The other factor is the rate at which the merchandise should turn during the period. By rate of turn or turnover is meant the number of times the stock is sold out completely and replenished during a given period. Thus, if the average stock carried is $25,000 at retail price and the sales for the year are $150,000, the stock has been sold out and replenished six times during the year. The rate of turnover is, therefore, said to be six. Thus, if estimates are made for a period of six months, the estimated sales for the period divided by the number of times the stock is expected to turn during the six months will give the average amount of stock to be kept on hand. Seasonal fluctuations must be taken cognizance of in determining the changes from average stocks to be carried at particular times during the period. Thus, if the estimated sales in a given department are $50,000 for the next six months and the merchandise turns twice during that time, manifestly a stock of $25,000, as priced at retail, must be carried. If the mark-on is 40%, the cost of the average stock will be 60% of $25,000, or $15,000, representing the average capital to be tied up in stock for that department. In practice the stock to be carried will usually be larger than this, as a margin of safety must be maintained to meet unexpected demand.

The Buying Quota.—The determination of a buying quota for a given period must take cognizance of the stock on hand at

the beginning of the period, the stock which it is planned to have on hand at the end of the period, and the estimated sales for the period. If from the sum of the stock planned to be on hand at the end of the period and the sales estimate for the period is subtracted the stock on hand at the beginning of the period, the buying quota for the period is determined. This buying quota is, of course, at retail price and must be reduced by use of the cost multiplier to a cost basis. An illustration will show the method:

Stock planned to be on hand at end of period	$25,000
Estimated sales for period	50,000
Total	$75,000
Stock on hand at beginning of period	23,000
Buying quota at retail price	$52,000
Mark-on is 40%, i. e., cost is 60% of selling price. Therefore	$31,200 = buying quota at cost

The "Open-to-Buy" Estimate.—The buying quota is estimated at the beginning of the period. At various times throughout the period, if stock is to be properly controlled, it is necessary to know how much of the buying quota is available. Furthermore, because estimates made at the beginning of the period never quite coincide with the facts of actual performance, it is necessary to take cognizance of these data of performance in determining the amount of stock to be bought at a given time. The difference between the estimated sales for the period and the actual sales to date is the estimated sales to be made during the remainder of the period. If from the stock on hand at a given date is subtracted the estimated sales for the rest of the period, the difference will be the estimated stock remaining on hand at the end of the period, providing no more purchases are made. If this amount is less than the amount of stock planned to be on hand at the end of the period, the department is "open-to-buy" to the amount of the difference. If the estimated amount on hand at the end of the period is more than the planned inventory for the end of the period, no additional stock should be purchased, except of course to replenish certain stocks which have become depleted and which it is necessary to have on hand to

meet the needs of customers. In calculating the stock on hand at a given time, cognizance must be taken of stock in the warehouse, in transit, and on order. A typical open-to-buy calculation is shown below:

Stock on hand today	$ 40,000.00	
Stock in warehouse	15,000.00	
Stock in transit	10,000.00	
Stock ordered (to be received before end of period)	25,000.00	
Total available stock		$90,000.00
Sales planned for period	$175,000.00	
Sales made to date	105,000.00	
Estimated sales for balance of the period		70,000.00
Estimated stock at end of the period		$20,000.00
Planned stock at end of the period		30,000.00
Open-to-buy amount		$10,000.00

This open-to-buy figure should be amended in the light of experience with regard to the way in which actual sales are running as compared with the estimated sales. If it is apparent that the sales are running ahead of the estimate, the sales quota should be enlarged accordingly, which will in turn increase the open-to-buy balance. A similar adjustment should be made in the event that actual sales are not keeping pace with the estimated quota.

The Stock Control Card.—The problem of stock control is not solved solely by a maintenance of buying quotas and limits. The movement of individual commodities must be watched very closely. The tying up of funds in large stocks of slow moving commodities may soon use up the buying quota needed for faster moving commodities. To maintain control over the movement of individual commodities, a record called the "stock control card," which is similar to the stock book, is of great value in some lines. To other lines it will not be found adaptable. It is not the purpose of this chapter to attempt to lay down specific methods adaptable to all situations but only to discuss basic principles and to illustrate them by methods found applicable to certain situa-

tions. The control card illustrated in Form 53 is one used in a retail shoe store.

On this form, the items, Style, Bought From, Description, and Material, are self-explanatory. On the line below, cost is shown in the first column, size in the next, and the month with days along the rest of the line follows. Horizontally are entered on the dates shown the quantities of stock received (Rec'd), on hand (O. H.), sold (Sold), and on order (O. O.).

STYLE	BOUGHT FROM	DESCRIPTION	MATERIAL
2783	Stevens & Co.	Black Oxford Blucher	Calf

Cost	S'z		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
4.50	9	Rec'd				1	1		24																								
		O.H.	19						3																								
		Sold	3	4	3	6	2		5	3																							
		O.O.		24																													
4.50	9½	Rec'd					1		24																								
		O.H.	11																														
		Sold	2	2	1	3	4			6																							
		O.O.		24																													
		Rec'd																															
		O.H..																															
		Sold																															
		O.O.																															
		Rec'd																															
		O.H.																															
		Sold																															
		O.O.																															

Form 53. Stock Control Card

(From Bulletin issued by the United States Chamber of Commerce)

According to the form, on August 1 there were on hand 19 pairs of shoes, size 9, and 11 pairs of size 9½. During that week, on consecutive days, 3, 4, 3, 6, 2 pairs of size 9 shoes were sold, of which 2 pairs (circled) were returned on the 4th and 5th; and 2, 2, 1, 3, 4 pairs of size 9½ shoes were sold, of which 1 pair was returned but again sold on the 5th.

On the first day of the following week, 24 pairs of each size which had been ordered on the 2d of August were received. Upon their receipt the O. O. (on order) figures were inclosed in circles. On that day also, the O. H. (on hand) figure was placed in its proper place in the size 9 group. All of size 9½ had been sold during the first week of August and there was, of course, no figure to be entered there.

The record is continued by daily postings of sales and by a weekly posting or entering of the stock on hand. Orders are entered on the day they are placed.

With such a stock record, a perpetual inventory is maintained and control over the movement of merchandise is secured.

Manufacturing Control.—The previous discussion has related to the problems of buying and control of stock in a mercantile business. Similar, though more difficult, problems of stock control are encountered in the industrial concern. Here, both raw materials and finished stocks must be considered and this in turn leads to a study of the control of manufacturing operations by means of which finished goods come into stock. This involves a consideration of all the elements entering into the cost of finished goods—materials, labor, and overhead. Only a brief treatment can be given these various problems here, little more than a statement of the problems being attempted.

Determining the Quantity to be Manufactured.—Control of manufacturing operations and, therefore, also of finished stocks and raw materials, rests upon a determination of the quantity of product to be manufactured. Just as with buying, this problem is closely related to that of selling and finance. Without an estimate of the sales requirements in the light of the financial resources available, no sound policy of manufacturing can be formulated. An estimate of sales requirements must cover both total sales and sales of each kind, size, and quality of product. Consideration must also be given to seasonal variations of demand and the quantity of stock which should be on hand at any given time to take care of expected demand. Manufacturing operations must, of course, be so scheduled as to produce the product in time to meet the demand. The length of the period required to manufacture the product is an important factor in determining the amount of finished stock to be kept on hand at any time. Thus, if the period is short, say 15 days, a smaller inventory will need to be carried than if the period is, say, 60 days. The ideal situation would be one in which the flow of factory output exactly takes care of sales as made. Because of

the inability to predict future sales requirements with that degree of accuracy, a sufficient margin of safety as reflected in the stock to be carried must be maintained. Once this is determined, the quantity to be manufactured will, under ideal conditions, follow very closely the estimate of sales demand. In deciding upon the quantity to be manufactured, due weight must be given to the minimum quantity which can be manufactured economically, the general policy as to maintaining an even flow of manufacturing activity and employment to factory workers, costs of idle plant, etc.

Control of finished stocks, thus, is more a matter of policy than it is of systems of record-keeping. The accounting records, however, will largely be relied upon to furnish the data on which decision in these matters of policy must rest. A perpetual inventory of finished stocks, maintained by means of a finished stock ledger over which the Finished Goods account is the control—as explained in Chapter 28—is a very helpful and effective method. A form of ledger for finished stocks similar to that shown on page 459 for raw materials will serve well. If every account in this ledger carries a notation of the minimum quantity to be carried, as soon as that quantity is reached, then a production order will be issued to replenish it. A close control of finished stocks may usually be maintained by this or other similar means.

Control of Raw Materials.—Somewhat similar considerations must be taken into account relative to raw materials. A knowledge of production quotas and schedules necessary to meet sales requirements, of sources of supply, of the length of time between the placing of an order and receipt of the materials, and of the stocks to be maintained—these are points to be considered in connection with a policy of raw materials control. In accounting for raw materials, the use of a balance of stores record or account is very useful. A typical form is shown in Form 54. The form carries notation of the minimum and maximum quantities to be carried. The minimum is set after due consideration of all the factors involved, and constitutes the margin of safety below which stocks must never be permitted to drop. The quantities to order are determined after taking cognizance of the

manufacturing requirements at a given time and the length of the order period. The maximum should ordinarily never exceed the minimum plus the quantity to order.

The balance of stores record is usually kept in quantities only. In addition to an actual balance column, there is also an available balance column. This shows the balance available after any reservations of present materials to care for orders received but not yet started into production. The quantity in that column is

BALANCE OF STORES

Item, ______ Spec. File No. ______ Location
Maximum, ______ Minimum, ______
Ordering Point, ______ Std. Order, ______ Unit, ______

Date	Ordered Units	Received Dr.			Issued Cr.			Balance		Applied		Avail-able	Remarks
		Units	Price	Amt.	Units	Price	Amt.	Units	Amt.	Units	Prod. Order		

Form 54. Balance of Stores Account
(From W. N. Mitchell, Purchasing, 1927, p. 352.)

the amount available for future orders. The form also notes the materials on order but not yet received.

Problems Connected with the Merchandise Inventory.—Proper accounting for merchandise at the time of inventory-taking and the close of the fiscal period requires a consideration of the following points:

Goods in Transit. It may happen that certain goods have been ordered during the period, and that the invoice has been received but that the goods themselves are still in transit. The

question whether or not such goods shall be included in the inventory involves the following considerations:

1. If the goods have been paid for in advance, they have undoubtedly been entered on the books as a charge to Purchases or to Purchases on Order. If this is the case, the goods in transit must, of course, be included in the inventory as if actually received.

2. If the goods are still in transit but have not been paid for, it is customary not to charge them to Purchases until they arrive. If not charged to Purchases, or other similar account, they must not be included in the inventory. However, theoretically, this method is incorrect. The fact that the goods have been ordered and are now in transit usually makes the business liable for their purchase price, particularly if bought f.o.b. shipping point. Although not actually received, in reality they form a part of the asset, merchandise. It is true that until the goods are received, inspected, and accepted, the purchaser has the privilege of refusing them if they are not as ordered, but this privilege is exercised only in exceptional cases. Generally speaking, therefore, it is better to consider such goods as a completed purchase, include them in the inventory and credit the vendor for the amount of his invoice. Instead of being charged to Purchases account, such goods may be charged to Purchase Commitments which will better indicate their status.

Goods Received but Not Yet Booked. In concerns where a separate shipping and receiving department is maintained, it may happen that the goods received by this department are not immediately transferred to stock or storage, in which case they may not have been taken up on the books. At the end of the period it is important to see that all such goods are properly recorded as purchased and are included in the inventory.

Goods In or Out on Consignment. Still another problem in connection with the inventory has to do with goods which do not belong to the business because they have been consigned to it for sale on account of their owner. Inward consigned goods must not be included in the inventory. If taken into stock, it is very

important that they be so marked as easily to distinguish them from the regular stock.

Similarly, if goods are out on consignment to another market, they still belong to the business and must not be overlooked at inventory time. If the proper record is made at the time the goods are shipped, as will be explained in Chapter 33, the memorandum accounts on the ledger will call attention to them. In some concerns, all such goods are entered as sales at the time of shipment. If at the end of the period part of these consigned goods are still unsold and in the hands of agents, they should be deducted from the sales for the period and included in the inventory at full cost.

Goods for Future Delivery. Goods sold for future delivery are best handled at inventory time in the manner suggested in Chapter 32, even if they are set aside ready for delivery.

Goods Ready for Current Delivery. Finally, goods sold for current shipment but delayed in delivery on account of congestion in the service or for some other cause are best treated as sales and excluded from the inventory.

Manufacturing Inventories.—In the manufacturing concern, most of the problems mentioned above must be given consideration. In-transit goods and those received but not yet booked must be considered usually only in connection with raw materials. Consigned goods and those for future and current delivery relate to finished goods. In connection with goods in process inventory, great care must be exercised to see that all the elements of value—raw material, labor, and overhead—are included in the value at which they are carried into the inventory.

Of all inventories, both manufacturing and mercantile, kept by means of a perpetual inventory system, there must always be a periodic checking by means of physical inventory in order to assure accurate valuations.

CHAPTER 32

SALES

Importance of the Sales Department.—Of the major departments into which business activities are commonly classified, the selling department ranks first in point of relative importance. Regardless of the efficiency secured in the other branches, regardless of the economy in buying and the excellence of administration, the life of a business largely depends upon the results obtained by the selling division. Since the sales department plays such an important part in the development of the business, it is evident that the accounting and financial problems connected with sales should be given careful attention and should be handled by the most scientific and up-to-date methods.

Need for Sales Information.—In Chapter 31, attention is called to the close relationship between the buying and manufacturing activities of a business and its sales activities. These are interdependent activities and must be carefully correlated if best results are to be secured. Information relative to sales is also needed by the financial executive, so that he may know the demands which will be made on him for financing credits to customers and also that he may be able to plan for such financing by making partial provision from collections of customers' accounts. The greatest need for sales information is that arising from the sales department itself. The solution to many puzzling problems of sales management rests upon such information.

The planning of future sales activities, particularly such as relates to volume of sales, must be done largely in the light of past performance, due regard being given to actual and expected changes in business conditions and in sales policies. In the marketing of merchandise, it is very important to know the relative profitableness of the various lines of goods handled. The effective expenditure of sales energy depends on this. Information

on this point can be secured if the accounts are properly kept. A study of sales demand and trend by sales territories; a study of the causes of sales returns and allowances; rating the relative effectiveness of salesmen; a study of profit margins as related to additional expenditures needed to increase sales volume; a study of the seasonal fluctuations in demand and their effect upon sales policies—these and many other problems require for their solution the factual data which the accounts should furnish. Only by means of an analysis of the records can most of these data be secured.

One of the most important principles of modern accounting is that the system by which the records are to be kept must be planned in advance. The modern accountant must first know the kind of information that is desired and he then can classify the accounts so that the information may be obtained from the ledger or other records at any time, with the least possible effort.

Basis for Sales Classification.—The majority of enterprises at the present time deal in a number of commodities, the kind, quality, and grades of which are of such variety that careful classification is imperative. Formerly, all goods sold were classed together under a single title "Merchandise," with the result that no detailed information concerning the sale of particular goods, qualities, and grades was available and the manager or proprietor was unable to study the movement of specific classes of commodities.

Applying the principle of classification to sales, the basis for classification depends on the character of the business and the nature of the goods sold. Where the commodities dealt in are of such variety that it is impracticable to have a separate account for each kind, a more general grouping by classes may be necessary. Where the concern manufactures some of its commodities and buys the remainder in the open market, an analysis of sales on the basis of "own" product and "other" product may be wanted. Sales may be classified also on the basis of the sales contract, as cash, credit, instalment, sales to branches, consignment sales, approval sales, etc. Accounting problems in connection with these various types of classification and analysis will be treated in the present chapter.

Principles Governing Analysis in Books of Original Entry.—It is evident that the kind of classification shown in the ledger determines the journal analysis. That is to say, the analysis in books of original entry, and therefore their columnar ruling, always depend upon the way in which the accounts are classified and grouped in the ledger.

The various types of analyses, both in journals and in ledgers, make use of either (or both) horizontal or vertical distribution. In most forms or records, except in banking and allied institutions, the generally accepted practice is to reserve vertical distribution for showing chronological sequence, and horizontal distribution for any other kind of classification. The reason for this lies in the fact that the time basis requires practically unlimited space and the requirement can be met only by vertical distribution, consecutive pages being considered as the continuation of preceding pages. Horizontal distribution, on the other hand, is limited to the width of the page.

By reference to Chapter 29, "The Voucher Register," it will be noted that for the purpose of horizontal classification the sheet contains a number of money columns, each headed by an individual class title, and that each item is first entered in the general column and then extended to one of the subsidiary columns. This serves as a check against error, since it is evident that the total of the general column must be equal to the sum of the totals of the other columns, thus furnishing a fair though not complete proof that the extensions have been made correctly. All books where analytical processes are involved should provide some kind of internal check. The student should refer to Chapters 13, 14, and 15, where forms of analytic journals and explanation of them were given.

Use of the Sales Ticket in Analysis.—Since the sales invoice or ticket is the basis for entry and analysis in the sales journal, it must give on its face the information necessary for making the analysis. In accordance with the basis of classification used, it should show the department number, the kind of goods sold, whether for cash or credit, etc. The use of invoices with printed department numbers and of different colors for cash, charge, and C.O.D. sales, aids in making the record effective.

In a business of any size, the entry on the main sales journal shows only the total for the day's sales. The sales tickets lend themselves easily to grouping, and therefore a day's sales may be analyzed by sorting and grouping the sales tickets. Under any method of this sort, of course, each ticket must be used for the record of only one class of goods. Thus the totals of each of these sorted groups may be entered in the sales journal at the end of the day. Besides furnishing the totals for each group of sales, the individual tickets are used also for the purpose of posting the sales to the accounts of the particular customers.

After use in these various ways, the tickets are filed away in binders for reference. Thus, the main books are freed of a mass of comparatively unimportant detail, to which it is necessary to refer only in rare cases.

Analyzing Sales Returns.—Attention should be called to the necessity of analyzing returned sales, allowances, and rebates, on the same basis as sales. Provision should also be made for a separate sales returns journal, since the general journal does not lend itself economically to an analyzed record of that kind.

In connection with sales returns and allowances, it is particularly important that information be secured as to the reasons for such returns and allowances. In dealing with customers who return goods or ask for allowances, it is necessary not only to decide on the justice of the claim made and to handle it both in the light of its justness and its effect on customer goodwill, but also it is equally important that the causes of dissatisfaction be determined and eliminated so far as possible. Omission of articles from the goods sent, damage in shipment, prices charged, quality of goods, wrong goods sent—all these causes of dissatisfaction should be recorded and the record studied to find a remedy. The accounting records will not usually furnish this information, but the memos—on which the accounting record rests—made when these transactions are dealt with should carry it and this should be analyzed and summarized.

It is usually best to keep separate accounts for Sales Returns and Sales Allowances in order to have available without analysis information under those two heads.

Purchases and Returned Purchases.—It has been pointed out that the basis of classification of sales in the ledger determines the analysis in the sales journal. The same classification should also be applied to purchases, returned purchases, and inventories, because only in this way is it possible to determine the profit from the different classes of merchandise.

Similarly, all inward costs, such as duty, freight, insurance, handling, etc., which enter into the cost of goods sold must be analyzed on the same basis and apportioned to each group on some equitable basis. Because of practical difficulties, however, this analysis or apportionment usually is not made upon the first entry of these items on the records, but a distribution on a more or less arbitrary basis is made at the close of the period. In a large concern where very detailed information as to results is desired, an analysis of many other expenses and costs applicable to each sales group is made. Such a distribution of expense, however, leads into the field of cost accounting which is beyond the scope of the present discussion.

The Handling of Cash Sales.—Where an analysis by kind of commodity is unnecessary, a simple method of booking cash sales is by entry in a "Sales" column provided in the cash book, the total of which is posted to the credit of "Sales" in the ledger. Under this method, cash sales need not be entered in the sales journal. In previous chapters where the functions of the subsidiary journals were discussed, the practice of entering a cash sale in both cash book and sales journal was advised, so that the summaries of each may show true totals for those groups of business activities. However, this principle is often departed from and the method just described for booking cash sales is followed. Where an analysis of the sales is desired, the practical difficulty of providing analysis columns in the cash book for cash sales in addition to analysis columns in the sales journal for the sales on account, gives added weight to the principle stated.

It is sometimes desirable to distinguish between cash and charge sales, thus requiring two accounts, the "Sales on Account" and the "Cash Sales," to show the total sales for the period. This is easily accomplished by the use in the sales journal of the "On

Account" and "Cash" columns whose totals furnish the amounts for posting to the two ledger accounts. Even were it desired to have two sales accounts, the cash and charge, for each department, the necessary information can be secured by providing in the sales journal two columns, a cash and a charge for each department and posting their totals to the two sales accounts carried for each.

A more complicated problem arises when it is desired to keep an account to show the total cash sales of *all* departments and at the same time to keep one sales account for each department, in which will be recorded both cash and charge sales. The information can be placed on the ledger, but not without destroying the usual meaning of the Cash Sales account. The purpose is accomplished by providing the sales journal with two total or general columns—in addition to the departmental columns—one for charge and one for cash sales, and by carrying a Cash Sales column in the cash book. The items in the Cash Sales column in the sales journal are distributed to the proper analytic columns for classification. At the end of the period, the totals of these analytic columns (which include both cash and charge sales items) are posted to the credit of the proper departmental accounts in the ledger. The total of the Cash Sales column in the sales journal, however, is posted to the *debit* of Cash Sales in the ledger, which will be offset by a corresponding credit item from the Cash Sales column in the cash book. These two totals should agree provided the books are completely posted.

Sales to Branches.—Sales to branches are made on different bases in different concerns. Sometimes such sales are charged to the branch office at cost, sometimes at full selling price, and sometimes at a fictitious figure. The first method is theoretically the best, but is not always desirable because head offices frequently prefer to keep their branches ignorant of cost prices. For this reason, such sales are frequently charged to the branch office at the regular selling price. By this method, however, the books of the head office record the goods as if actually sold, while in reality they have been merely transferred to a branch office. Consequently, the books show a profit which is not yet earned. In order to correct this, it is necessary at the end of the period to make an

adjustment entry covering all goods still in the possession of the branch office unsold at that time. By billing the goods at a fictitious figure, the branch is also kept in ignorance as to real profits, but proper adjustment should be made at the close of the period, for the reason explained just above.

Whichever method is followed, sales to branches should always be kept separate from the regular sales accounts. Where shipments of goods to branches are frequent and a matter of regular routine, a branch shipments journal similar to the sales journal will suffice. The total of such sales should be credited to a Branch Shipments, Branch Consignments, or some similar account, so as not to confuse these transactions with regular sales. The subject of accounting for both domestic and foreign branches is treated in Kester, *Advanced Accounting*.

Consignment Sales.—Consignment sales—which in some respects resemble branch sales—should also be recorded separately from regular sales. This is so because the title to goods out on consignment is still vested in the consignor and no element of profit appears in the transaction until an actual sale is made. However, in the case of an *occasional* consignee as distinguished from a factor who deals regularly in consigned goods, it has usually been held that the title has passed to the consignee so far as the consignee's dealings with all except the consignor are concerned. Only in this way can the interest of innocent third parties be adequately protected.

The accounting for consignments is treated in Chapter 33.

Instalment Sales.—The instalment sale should be treated in a different manner from regular sales because of certain special features connected with it. The chief characteristic of the instalment sale is the probability of the goods coming back into the seller's possession through forfeiture because of non-payment of instalments, the profit on the transaction, of course, being affected thereby.

The sale of goods with the privilege of payment in instalments is a well-recognized custom in certain lines, particularly in the furniture, piano, book subscription, and similar businesses. To protect the seller, the sales contract almost invariably contains a

clause to the effect that title to the goods shall remain in the seller until final payment has been made, that failure to pay any instalment when due shall result in the cancellation of the contract, and that in such case the goods shall be returned to the seller. Experience with this class of sales shows that a large number of contracts are forfeited with or without return of the goods. Where the goods are returned, there is frequently a large loss through depreciation, the returned goods having to be treated as secondhand. In some instances, to enforce return of the goods might entail greater expense than loss of the goods themselves. These are, of course, questions of business policy rather than of accounting, although the results shown by the accounting department enter into their settlement.

Accounting for Instalment Sales.—The accounting for sales under the instalment plan is not necessarily different from accounting for other sales. Such sales may be charged to the customer and credited to Sales or various departmental sales accounts. If the goods are forfeited and returned, the record is to Returned Sales for the debit and the customer is credited for the unpaid instalment. Whatever profit or loss there may be on the transaction will be shown in the Profit and Loss account when the inventory is taken and the returned goods are appraised. It is the practice in some concerns to appraise the returned merchandise as soon as returned. If so handled, the amount of the profit or loss will be immediately determined and will then be entered in an appropriate account, such as Profit and Loss on Repossessed Merchandise. If the customer fails to pay his instalments but does not return the goods, the loss is one from bad debts.

Separation of Instalment from Regular Sales Records.—Where both instalment and regular sales are made, as is usually the case since few concerns limit their activities entirely to the instalment method, it is best to keep a separate instalment ledger with a controlling account, called "Instalment Accounts Receivable" or "Instalment Contracts." The two classes of customers should be kept separate because of the greater liability to loss in the one class than in the other. Before profits for the period can be correctly determined, it is necessary to estimate the probable

loss on contracts closed during the period. In the balance sheet, separate showing should be made of the reserve for this class of accounts receivable and the reserve for the other class. The estimated loss on the instalment accounts is, of course, a figure based upon experience, but a conservative policy requires that the amount should be fairly liberal.

Delinquency Records.—Forfeiture of contracts is not usually enforced upon first failure to pay an instalment, but such delinquencies should be brought to the attention of the management and particularly of the credit and collection department. Delinquency may even be recorded in the books by transfer from the Instalment Accounts Receivable to a "Delinquent Instalment" account. This makes an up-to-date analysis of the Instalment Receivable account and so furnishes a better basis for estimating losses from bad debts than where no separation is made.

Chief Considerations in Handling Instalment Sales.—From the accounting standpoint, the chief question is that of making the estimate of loss for uncollectible accounts. From the standpoint of financial management, instalment sales present the problems of passing on credits before taking the risks and afterward of pushing collections so as to prevent, whenever possible, forfeiture and consequent loss. It is not purposed to treat of these phases here. For them the student is referred to standard works on credits and collections.

Pro-rata Profit on Instalment Sales.—The handling of the instalment sales transaction as a regular sale is based on the assumption that the profit on such sale is made when the sale is made and belongs to that period, even though title to the goods may not pass till full payment has been made. When so handled, a very liberal allowance for uncollectible accounts must be made. The Federal Income Tax regulations provide for an alternative method of handling, if the taxpayer so elects. By this method, only such portion of the profit is taken in the current period as the amount paid by the customer bears to the sales price. Thus, if during the current period $30 is paid on a $100 contract or sale, 30% of the total profit would be considered as earned during the

current period. If later the merchandise is returned or possessed, the amount of the adjustment caused thereby is considered as belonging to the period making the adjustment. The method of accounting for such sales under this view is treated in full in Chapter 23 of Kester, *Advanced Accounting.*

Sales for Future Delivery.—From a legal point of view, the receipt of a purchase order gives rise to certain rights and obligations enforcible at law between buyer and seller. While the seller may not be able to enforce specific performance of the contract, yet he is entitled to the damage incurred through non-performance. Every merchant knows, however, that the cost of securing the remedy is usually higher than the resulting gain and, furthermore, an action against the customer frequently causes the loss of his trade.

Sales for future delivery do not always materialize, since either the buyer or the seller may wish to cancel the contract. A conservative policy, therefore, demands that the sale be not booked until delivery is made. The order, however, may be received in one fiscal period and the sale be credited to the period in which the goods are delivered, while the major part of the expenses in connection with the sale may have been incurred during the period in which the order was received. The current period then is charged with the expenses but does not receive the credit to which it seems entitled. Therefore, the portion of the selling expense incurred during the period in which the order was secured should be deferred to the period which receives the credit for the sale.

This policy should be followed even when the goods covered by the future sale are set aside specifically for future delivery and the sale should not be booked until delivery is made. At inventory time such goods should be included at cost, with the deferred expense charge as above. Occasionally, an unscrupulous merchant in need of cash will bill such goods and discount the invoice; but for the reason given above such goods should not be charged to the customer until delivery is made.

Department Store Sales.—As indicated above, in a department store sales are usually classified by departments. The two classes of sales tickets, cash and credit, are sorted by departments

and the totals are entered daily either in the sales journal or on the loose sales sheets which, when filed in a binder, make up the sales journal. At the end of the month, the journal is posted to the various departmental sales accounts. Each day the entries on the sales journal are checked against the cashier's record of cash received from sales and the bookkeeper's record of charges posted to customers.

C. O. D. Sales.—For this class of sales, the credit is booked in the usual way but the debit is made to a C.O.D. account. The packages are charged on the shipping department's memorandum records to the various delivery men who are credited with the collections turned in. These collections form the basis for the credit to the C.O.D. account on the ledger. Any balance in the C.O.D. account shows the amount of the undelivered goods still on hand in the shipping department or on the wagons and therefore charged against the various drivers.

Approval Sales.—In many lines of business approval sales are common. Merchandising concerns frequently send goods to customers for trial and inspection, with the privilege of return if the goods prove unsatisfactory. Publishing houses often send out books—both single volumes and whole sets—with a few days' examination privilege. This class of business is often handled in a rather unsystematic fashion. Usually it is impossible to discriminate among prospective customers, since offers of this kind must be made to all alike. Consequently, the privilege is often abused by the unscrupulous.

Accounting for Approval Sales.—This abuse creates the problem of a correct method of handling approval sales. The difficulty is rather one of organization and administration than of accounting procedure; the record-keeping presents no new difficulties and under certain conditions may be likened to the methods of recording outward consigned goods. In no sense are such transactions to be regarded as sales and handled in the regular sales records, thereby showing a profit not yet earned. The correct method, both from an accounting and a legal viewpoint, is to keep a memorandum record of approval sales similar to that made for consignments.

Unlike consignments, however, the price shown in the invoice is the actual selling price of the goods, and the sale if consummated is treated as a regular sale, no effort being made to keep the profit or loss on approval sales separate from the profit on regular sale transactions.

In the retail trade, the prevailing practice in handling approval sales is to enter the charge to the customer's account when the goods are sent out and to credit the account for all returns. In this way the books keep record of all goods out on approval and provide an adequate check against lost or misplaced goods.

When transactions of this kind are large in number, subsidiary books devoted exclusively to their record may be kept.

Tickler File Method of Handling Approval Sales.—Approval sales transactions must usually be completed within a comparatively short space of time, either by acceptance or by return of the goods, and in such cases a shorter method of recording them is followed. The sales tickets or invoices covering approval sales are made with some kind of a distinctive mark—color of paper, title, etc.—to allow their easy separation from the regular sales tickets. These tickets are kept in a temporary tickler file in the order of the expiration dates of the approval period. If the sale is consummated, the ticket bearing a stamp to that effect is sent through for record as a regular cash or credit sale. If the goods are returned, the ticket may be filed as a part of that particular customer's record. In this way a cumulative record is secured which would in some cases give an interesting commentary on human nature. If the customer is one who makes it his or her practice to buy on approval to secure the free use of nice wares for an evening or for some social function, the record would show it. A rigorous and unrelenting collection and follow-up system, supplemented by a full credit and information record, is the only safeguard against unscrupulous customers and oftentimes even this proves inadequate.

At inventory time all goods out on approval as shown by the approval sales file must be included in the inventory at inventory price, for the goods are still owned by the firm. As stated above, they must never be treated as sales.

The Bill and Charge System.—By this name is known the method of writing up the customer's bill and using it as the basis for the charge to his account. The system is operated somewhat as follows: The duplicate sales tickets go to the auditing department, where they are first sorted by departments to secure the departmental analysis of the sales, and then re-sorted according to customers. Thus, if a customer has made purchases in more than one department, the tickets covering all his purchases are brought together. Each customer's monthly bill or statement of account is started at the beginning of the month on a folded bill-head perforated at the fold, the duplicate or under portion usually being somewhat wider, with loose-leaf binder punchings. On these bill and duplicate blanks the charges for the day are entered from the sorted sales tickets. This work is usually done on a billing machine with carbon roll or with carbon paper insertion.

At the end of the day, the total amount of the charges entered on all monthly statements is either found by means of an adding machine or is indicated by the "tally strip" of the billing machine. This total must, of course, be equal to the aggregate amount of all sales tickets for that day, thereby proving the work of the billing clerks.

Customers' bills, after entry each day, may either be passed on to the bookkeepers who charge each customer's account with the day's total purchases as shown by the bill, or the bills are returned to the file until used again for subsequent purchases. In such case the bookkeeper enters the total monthly charge to the customer's account only once a month.

Returned goods and allowances are also entered on these customers' bills, but in a separate column or on another portion of the sheet.

The total charges entered on these statements must check against the total credit sales for the month, thus proving the additions of the bills.

At the end of the month, the bill is torn from its duplicate and is passed to the bookkeepers. They enter the previous month's balance, if there is one, and the current payments on account, and extend the amount now due. After the bills or statements have been mailed to the customers, the duplicate bills are filed away,

being virtually the detail of the ledger account, for use in case of dispute.

This method of handling credit sales provides a ready means of getting the bills out on time, of assuring agreement between the ledger accounts and the bills, of freeing the ledger accounts of unnecessary detail, and of checking the total billings against the total sales tickets.

Salesmen's Commissions and Efficiency Records.—Salesmen are often paid a commission in addition to salaries. Where the commission is based on the amount of sales, the sales ticket is made use of as the source of information for computing the commissions earned. To this end the tickets are sorted according to salesmen, and a record sheet, either separate or as an adjunct to the sales journal sheets, is filled in with each salesman's total sales for the day. These totals should prove against the salesman's record in the back of his book of sales tickets. At the end of the month, his total sales are shown by his record sheet and his commission is determined therefrom. Of course, the total for all salesmen as shown by these sheets must equal the total sales for the period.

If the commission, often known as "spiffs" or "P. M.'s," is allowed only on certain classes of sales in order to encourage the movement of old stock, each sales ticket should indicate the amount of premium or commission due, so that a record can be made without the necessity of depending on the records of the individual salesmen.

Salesmen's records besides being used for the particular purpose of computing commission, or bonuses due them, serve a wider object in that they contain fairly complete and reliable data in regard to the value and efficiency of individual salesmen.

This is particularly true when each salesman's sales are further analyzed by kinds of goods sold so that it can be determined whether or not he is pushing the sale of the most profitable kind or is merely content with volume of sales, regardless of their relative profitableness. Whenever an increase in a salesman's salary is considered or when the sales force is to be decreased in number, these efficiency records are a valuable aid in making the right decision.

CHAPTER 33

CONSIGNMENT SALES

Definition.—When goods are shipped to another party to be sold by him for account of the shipper, the transaction is called a "consignment." In its original sense, to "consign" means to seal, sign, mark, or label in a formal way. In commerce this term has come to signify goods sent for sale through another party. Usually, such goods are marked or labeled to distinguish them from those belonging to the consignee. The owner or sender is designated "the consignor"; the selling or receiving party, "the consignee." Sometimes the word, shipment, is used by the consignor to designate the goods sent away for sale, and the word, consignment, to indicate the goods received by the consignee. However, the terms, "consignments-out" and "consignments-in," are more descriptive and will be used here.

Legal Status.—Before treating the accounts required to record consignment transactions, it is well to understand the legal relations between the consignor and consignee. The general law of bailments and of agency applies in a restricted sense to consignments. A bailment is defined as: "A delivery of goods for the execution of a special object, beneficial to the bailor, the bailee or both, upon a contract expressed or implied, to carry out this object, and dispose of the property in conformity with the purpose of the trust." Agency is the term used to indicate the legal relation between a principal and the agent who represents him. A person appointing another to act for him in his dealings with third parties is called the principal. The one appointed to represent the principal is the agent. A bailment is, therefore, a special class of agency transactions with particular rules governing the safe-keeping of the goods of the principal in the possession of the agent. In the case of a consignment, the consignor is the principal and the consignee the agent. The relation of the con-

signee to the consignor as regards the care to be exercised in handling the consignor's goods is a bailment relationship.

The Broker.—A broker, although he acts as agent, usually is not a consignee. He acts "as a middleman, bringing people together to trade, or trading for them in the private purchase or sale of any kind of property, which property, ordinarily, is not in his possession." The charge for his service is usually in the form of a commission, sometimes called brokerage. There are several classes of brokers, named according to the kind of commodity they deal in; for instance, there is the exchange broker, the note broker, the insurance broker, the stock broker, the real estate broker, the merchandise broker, etc.

The Factor.—Other types of middlemen are the manufacturer's agent, who is a broker or sales agent, effecting sales usually by means of samples; and the factor or commission merchant who actually handles and sells the goods of his principal. The chief distinction between the broker and the factor is that the broker sells goods in the name and for the account of his principal, but the goods are delivered directly to the purchaser by the principal, who also collects the account; whereas the factor has the goods of his principal in his possession and sells them either in his own name or in the name of his principal.

The factor may operate under a specific contract with his principal, covering a single consignment, or under a general contract governing all consignment transactions between the two parties. Again, there may be no formal contract between them, in which case the law sets up a contract relationship based on trade usage and customs in any particular line. Where the factor operates under a specific or general contract, certain points may arise which are not provided for in such contract, and on these points trade custom governs.

Duties of the Factor.—Barring specific instructions, the factor may conduct the consignment transactions for his principal on the same basis and in the same general way as he would conduct them were the goods his own. In other words, he is expected to exercise the same care in the handling of consignment goods

as he employs in handling his own property. In selling goods consigned to him he may extend credit to the buyer if it is the custom in that particular line to do so, and he must exercise due care as to the rating of the customer. He must push his collections with ordinary diligence. He may warrant the goods sold if that is customary. He can give good title to goods sold, and this title may even be better than the one possessed by the owner of the goods. A bona-fide purchaser who does not know the principal is protected in a sale made by a factor even if the factor exceeded his authority.

Factor Must Protect Goods.—So long as any part of the principal's goods are unsold and in the possession of the factor, he must protect and safeguard them. He is not liable, however, for damage from forces or conditions over which he has no control. The degree of diligence required of him largely depends on the nature of the goods. What would be considered due diligence in one case might be construed as gross neglect in the case of more valuable or perishable goods.

Consignments to be Kept Separate.—It is a fundamental requirement and of the very essence of the factor relationship, that the principal's goods must be kept distinct from all other goods in the factor's possession. This applies not only to the consigned goods as such, but also to the assets received by the factor upon the sale of such goods—as cash, accounts and notes receivable, etc. To satisfy this latter requirement, it is usually held that actual separation is not necessary, but that it is sufficient to record these properties in such a manner that they can always be separated if the need arises. The principal's properties are held in trust for him by the factor but are subject to the legitimate claims of the factor.

Expenses Charged Against Consignment.—Barring specific instructions to the contrary, the factor may incur certain expenses necessary to safeguard the interest of his principal and to effect the sale of his goods. These include such items as freight, insurance, duty, handling charges, allowances and rebates to customers

for unsatisfactory goods, etc. All these are proper charges against the consignment, i. e., against the principal.

Factor's Lien on Consigned Goods.—For any legitimate expenses incurred and for any payments made the principal in advance of the settlement date, the factor has a lien on the consigned goods. It has been held in some cases that the factor has the right to sell the goods in satisfaction of the lien, and if the proceeds of the sale are not sufficient to satisfy the factor's claims against the principal, the latter is liable for the amount of the deficiency. The factor's commission from the principal is also protected by this lien and, if necessary, the factor may apply part or all the proceeds of the sale toward the payment of his commission. A lien, of course, is binding only so long as the goods are in the factor's possession.

ACCOUNT SALES

of fruit received via Seaboard Air Line, from
H. C. CLONEY, BRADENTOWN, FLA.,
to be sold for his account and risk

RENDERED BY GAYNOR & GAYNOR, 21 WHITEHALL ST.,
NEW YORK, MARCH 5, 19

19-						
Feb.	2	Received:				
		250 bxs. oranges @ $ 3.75	$937	50		
		100 " lemons @ 4.25	425	—	$1,362	50
		SALES				
Feb.	3	100 bxs. oranges @ $ 4.50	$450	—		
		75 " lemons @ 4.40	330	—		
	5	150 " oranges @ 4.75	712	50		
		25 " lemons @ 5.00	125	—	$1,617	50
		CHARGES				
		Freight & Cartage	$ 50	—		
		Commission 5%	80	88	130	88
		Net proceeds by check enclosed			$1,486	62
		E. & O. E.				

Form 55. Account Sales

Account Sales.—Upon completion of his service, the factor must make a strict accounting of his transactions to the principal. In case of dispute he can be required to open to the inspection of

the principal his records covering the consignment dealings. The usual method of settlement is by means of an "account sales" rendered by the factor to his principal. The account sales is a summarized statement of all transactions connected with a particular consignment. It constitutes the formal accounting for the consignment transaction. It must show the amount or quantity of goods received, the sales made, and the expenses incurred, the balance being the amount due the principal. This amount may be either remitted or credited to the principal's account, according to the contract between them. The usual form of account sales is shown in Form 55.

Goods may be billed to the factor at cost, at the current market price, or at some fictitious figure. This billing price does not enter into the accounting of the factor at all. It is the selling price of the factor which is the basis of income against which expenses are charged. The principal may indicate a selling price for his goods but this serves merely as a guide to the factor as to the price desired. If the principal gives specific instruction as to sale price, the agent must govern himself accordingly.

Compensation of Factor.—The factor usually receives his compensation on a commission basis—so many per cent of the sales he makes. When the contract makes specific provision for it, he may sell the goods at a higher price than that fixed by the principal and retain part or all of the excess as compensation.

"Del Credere" Agency.—Where a factor sells on credit, the accounts belong to the principal and any loss through uncollectible accounts is borne by the latter. Sometimes the factor guarantees the collection of all accounts; in this case he is known as a "del credere" agent and receives additional compensation for assuming this risk. Such a guaranty really amounts to a sale of the accounts to the factor.

Advantages of Consignments.—While the practice of consignment trading is not so prevalent now as it was formerly, it still prevails in some lines and under certain conditions. Shippers to the produce market frequently consign their goods to city brokers whom they instruct to take advantage of the prices pre-

vailing in the open market, and in this way they may realize higher prices than when they sell outright to the wholesaler. The consignment shipment has another advantage to the shipper, in that the title to the goods remains vested in him; hence, a consignment is safer than a sale on credit to a consignee unless his rating is satisfactory. The practice of consignment trading is of sufficient importance to require a discussion of the accounting principles involved. These will be given first from the viewpoint of the consignor, and then from that of the consignee.

The Consignor's Entries.—The chief interest of the consignor lies in the net outcome of each sale in order to determine the advantage, if any, of the consignment policy over a straight sale policy. To accomplish this, he must keep a separate account with each consignment, either on the general ledger or on a subsidiary ledger with a total summary account on the general ledger. When the consignor sends the goods, whether they be invoiced at cost, sale, or some other price, entry should not be made direct to his Sales account, for no sale has been made as yet. He has merely placed some of his stock in another market, being still the owner of the goods.

Two Methods of Entering Sales on Consignor's Books.—There are two ways of recording correctly a consignment on the consignor's books at the time the goods are sent.

First Method. According to one method, the goods are transferred from Purchases to another merchandise account, having for its title the word, "Consignment," followed usually by the name of the consignee and the number of the particular consignment made to him, as "Consignment No. 4, J. B. Arscott." To this account are charged not only the goods at cost price but also all expenses of the transfer, as freight, duty, insurance, etc., the corresponding credits being to Cash or to Purchases as the case may require. This is the only record made, until the account sales is received from the factor. Upon the receipt of the account sales, the Consignment account may either be credited with the net proceeds or be charged with the expenses and credited with the gross sales, as shown in the account sales. If the money is

remitted by the factor the Cash account is debited; otherwise the factor's account is debited for the net proceeds.

The consignment account is now a true proprietorship account, showing income on the one side and cost of that income on the other side. The difference is either a profit or a loss according as the balance is a credit or a debit. In order readily to distinguish complete consignment transactions from those only partially completed, it is best to close the completed accounts by a transfer of the balance to a "Consignments Profit and Loss" account where it is held until the close of a fiscal period, at which time it is carried to the general profit and loss.

Second Method. The second method of recording the transaction at the time of sending the consignment is to set up two memorandum accounts, Consignment and Consignment-Out (or Consignment Sales), debiting and crediting these respectively with the invoiced value of the consigned goods. In this case there is no credit to the Purchases account as under the first method given above. Any expenses incurred are charged to the regular expense accounts instead of to the Consignment account. For handling the consignment shipments no special books are required, original entry being in the general journal. If there are many such transactions, however, a special column in the sales journal or a special consignments-out journal is desirable.

Upon receipt of the account sales, the regular sales account is credited either with the net or with the gross proceeds; and the other accounts—as cash, the consignee, and expenses—are debited according to the manner of booking as explained in connection with the first method.

The two memorandum accounts, having served their purpose of calling attention to the fact that some goods have been sent to other markets for sale, should now be canceled by a reversing entry, since the goods have been sold and the record of their sale has been made in the regular sales account. The effect of this second method is to merge consignment and regular sales transactions into one record, making impossible a separate showing of the profit or loss on consignments. The particular method to be used, therefore, will depend upon the information desired.

Consignor's Inventory.—If the consignor's fiscal period closes before an account sales in full settlement is received, and if accounting treatment is by the first method, the goods shown in the Consignment account are included in the inventory of goods on hand and so represented in the balance sheet. If the second method is used, the Consignment and Consignment-Out accounts are both omitted from the balance sheet, being merely canceling memorandum entries, and the unsold portion of the consigned goods is included in the inventory. In determining the value of consigned goods, the expenses incurred in sending the goods to the new market may properly be included as a part of the cost.

The Consignee's Entries—First Method.—Two methods of making entries on the consignee's books at the time of receipt of goods are used. In the first method, two memorandum accounts, Consignments and Consignments-In, are set up, Consignments being debited for the billed value of the goods received, and Consignments-In being credited for the same item. The purpose of these accounts is merely to set up on the general books a reminder of the transaction.

A third account, John Doe, Principal, is used for current record. This account is charged with the expenses incurred in connection with the consignment and is credited with the sales made therefrom; it is charged also with the consignee's commission. The balance of the account is, at the completion of the sale, the amount due the consignor, Doe. When this is paid, the account is closed by a debit to John Doe, Principal, and a credit to Cash or Notes Payable. So long as the balance is unpaid, the account, John Doe, Principal, shows the factor's liability to his principal. This is a special kind of liability, that of a trustee, which is indicated by the inclusion of the word, "Principal," in the account title; in case of insolvency a portion of the assets equal to the balance of John Doe, Principal's account belongs to John Doe and, unless merged beyond possibility of separation, must be so treated. When the sale has been completed, the memorandum accounts, Consignments and Consignments-In, are canceled against each other, having served their purpose.

The Consignee's Entries—Second Method.—Under the second method, instead of an entry on the general books, the receipt of the goods is recorded in a blotter or memorandum book of consignments received, in which are entered all essential data, covering the name of consignor, quantity, price, legend or distinguishing marks, etc. Expenses incurred are charged to John Doe, Consignment account on the general books, and sales are credited to the same account. Settlement is made as with John Doe, Principal, as explained above, except that when the balance is not paid it frequently is transferred to a simple John Doe, Personal account, where so far as account title is concerned it loses its character as a trust account and is merged with all other creditors.

Consignments Must Have Distinguishing Marks.—In making his sales from the various consignments, the factor must be careful to record them in a way to distinguish the goods taken from different consignments. This is particularly true of sales on account, for if the accounts prove uncollectible it is important to know to which lot the loss must be charged. This is accomplished by recording the consignment legend or mark with the sale.

Factor's Books at Close of Fiscal Period.—When the factor's books are closed, the commissions earned to date on consignment sales, whether the entire consignment transaction is fully or only partially completed, should be taken into account. Commissions earned on completed consignments should already be on the books as debits to the various principals' accounts and credits to "Commissions Earned." The commissions on incomplete consignments are brought on the books by entry of the accrued income in the Commissions Earned account, the amount being based on the sales made from the incompleted consignments during the period. The accounts with these incomplete consignments may show either debit or credit balances. If a debit balance is shown, the account is an asset representing the consignee's claim against his principal for expenses incurred in excess of sales made. If a credit balance is shown, the account represents a trust liability as above. At a closing time. the memorandum accounts of incom-

plete transactions should be adjusted to their present inventory values.

Consignee's Inventory.—Just as the consignor must be careful to include in his inventory all goods out on consignment, so the consignee must be equally careful to exclude from his inventory all goods of his principal's still unsold and in his possession.

Illustrative Entries on Consignor's and Consignee's Books.—An illustration of a simple consignment transaction from the viewpoint of both consignor and consignee is given below. It is assumed that a consignment transaction takes place between J. J. Querles and I. M. Factor as follows:

PROBLEM. Querles sends to Factor to be sold for his account goods amounting at cost to $1,250. He pays cartage $15, and insurance $25; while Factor pays freight, duty, and cartage amounting to $52.50. Factor makes sales of $1,600 and renders an account sales showing also allowances to customers of $27.30, a 5% commission charge and 1% for guaranteeing collection of all accounts, and the net proceeds credited.

1. Querles' books at the time of sending the goods to Factor:

Consignment, I. M. Factor, No. 1	1,250.00	
Purchases		1,250.00
Consignment, I. M. Factor, No. 1	40.00	
Cash		40.00
Cartage $15, insurance $25.		

2. Factor's books at the time of receipt of Querles' goods:

Consignment	1,250.00	
Consignments-In		1,250.00
To set up memo accounts of the receipt of Querles' goods.		
J. J. Querles, Principal	52.50	
Cash		52.50
Freight, duty, and cartage on Querles' goods.		

3. Factor's books during the course of consignment transactions:

Customers	1,600.00	
J. J. Querles, Principal		1,600.00
To credit Querles with the sales.		

J. J. Querles, Principal	123.30	
Customers		27.30
Commissions		80.00
Collections Guarantee		16.00
To charge Querles with all expenses.		
Consignments-In	1,250.00	
Consignment		1,250.00
To reverse.		

4. Querles' books upon receipt of the account sales:

Consignment, I. M. Factor, No. 1	175.80	
I. M. Factor	1,424.20	
Consignment, I. M. Factor, No. 1		1,600.00
To credit the consignment with its sales and charge it with its expenses, including commission and to charge Factor with the balance due.		
Consignment, I. M. Factor, No. 1	134.20	
Consignments Profit and Loss		134.20
To transfer the profit on this consignment.		

5. When Factor finally remits the balance of $1,424.20, his entry is:

J. J. Querles, Principal	1,424.20	
Cash		1,424.20

thus canceling his liability to Querles.

6. Querles' books will show:

Cash	1,424.20	
I. M. Factor		1,424.20

canceling his claim against Factor.

If the second method (see page 482) of making the consignor's record is used, the entries under 1 above will appear as follows:

Consignment, I. M. Factor, No. 1	1,250.00	
Consignments-Out		1,250.00
Cartage	15.00	
Insurance	25.00	
Cash		40.00

and entry 4 would be:

Freight	52.50	
Sales Allowances	27.30	
Commissions	96.00	
I. M. Factor	1,424.20	
Sales		1,600.00
Consignments-Out	1,250.00	
Consignment, I. M. Factor, No. 1		1,250.00
To reverse.		

In these last entries made under the second method, consignment sales are included in the regular Sales account, and the profit or loss is merged with that from regular sales.

Decision as to which of the two accounting methods should be used must be made according to the information desired by the principal. Where consignment transactions are a side line, the record is usually kept by the first method which shows the profit or the loss on each transaction and thus furnishes valuable information for executives. This is sometimes called the occasional consignment theory or method. Where the consignment transaction is the usual method of effecting sales, the second method illustrated above is generally to be followed, because by this method all consignment transactions are properly included in the regular sales and expense records.

CHAPTER 34

THE FINANCIAL ASPECTS OF BUSINESS—CASH AND ITS HANDLING

The Financial Problems of a Business.—The function of the financial manager of a business is obvious, viz., that of providing the funds needed for the business. This function is twofold and comprises:

1. The furnishing of the original capital funds needed at organization of the business and oftentimes at subsequent intervals, if the business is a growing one.
2. Maintenance of a fund of working capital adequate to pay all operating expenses and debts as they fall due and to provide for the distribution of profits to the owners.

The first problem, that of the raising of vested and other long-term capital funds, has been treated in previous chapters, so far as its accounting aspects are concerned. Single proprietorship and partnership capital investments and loans, and corporate capital stock and bonds, are the titles under which this problem has been considered. Here, we are concerned with the second problem, that of working capital, and with this only as it relates to accounting. For an intelligent handling of the accounting, however, an appreciation of the questions involved must be had. It is purposed in this and subsequent chapters to treat briefly of these. Among the more important of these questions are:

1. Cash, its source, disbursement, and safeguarding.
2. Negotiable instruments and investments.
3. Credit and collection policies.
4. Valuation as applied to the commercial balance sheet.
5. Interpretation of financial statements.

In the present chapter the methods of handling cash will be considered.

The Sources of Cash Receipts.—Cash is the stock-in-trade of the financial manager. It is the medium for the payment of all debts and a flow of it through the business for this purpose must be maintained. In all business, the main source of cash is through sales—sales of stock-in-trade or services. In the retail trade, much of this comes at the time the sale is made. In the wholesale trade and in manufacturing, it comes chiefly through the mails at the expiration of the credit period. Other sources of cash receipts are: (1) bank loans and short-term notes sold through brokers; (2) conversion of securities in which temporary excess of cash funds has been invested; (3) interest, commission, royalty, and other earnings; etc.

Handling Cash Receipts.—The method of handling incoming cash depends largely on the internal organization of the business. A brief consideration of this matter is given in Chapter 16 where the desirability of using a system of paper work for this purpose is pointed out. In a small business, some form of cash register may suffice, the physical inventory of cash at close of day being checked against the amount registered. To localize responsibility, a separate cash drawer or till with registering device is provided. In larger concerns, cashiers' stations or cages are established at convenient places—or one large central cage may be used—connected with the sales departments by means of automatic carriers of some sort. Where sales tickets are numbered and all numbers accounted for at the close of each day, there is little chance of systematic stealing, particularly where the wrapping department is required to check the merchandise against a copy of the sales ticket. Paper work, i. e., sales tickets, used in connection with cash registers is desirable where feasible.

For cash coming through the mails, the making of a formal list of remittances is a good safeguard before the cash, checks, etc., are released to clerks for verification of the amounts against the customers' accounts and before entry in the cash book. This remittance list should be checked against the daily deposit ticket to see that all items are being sent to the bank or to raise inquiry as to why some are not being deposited.

The handling of cash coming from bank and other loans, the

sale of securities, and miscellaneous earnings, is usually not so difficult a matter, since adequate safeguards are provided by the various business channels or hands through which such transactions pass. Care must be exercised, however, to make use of the safeguards so offered.

Handling Cash Disbursements.—Outgoing cash must be guarded with as much rigorous care as incoming. The establishment of a regular routine for all disbursements is the first step. Cash should not usually be disbursed except upon authorized voucher. Routines for this are discussed in Chapters 16 and 29. In the handling of exceptional disbursements—such as for the construction of fixed assets, the purchase of securities, the payment of taxes, the buying of insurance, etc.—the establishment of an authorization in the hands of an official other than the disbursing officer is very desirable. This use of internal check —the checking of one individual against another—is usually the best safeguard that can be established.

The payroll, in a large concern, is a frequent source of error and fraud. The same general principles of safeguarding apply here. Employees should be taken into the business only through an employment department which will issue a notice authorizing the addition of names to the payroll and this department must be notified of any dropped from the payroll. The payroll should be checked as to mathematical correctness, and also as to content of the roster, where possible, both before and after making payment.

If payment is by check, the total amount of the payroll should be transferred by check to a special bank account on which the individual checks are drawn. If payment is in currency, this will be secured by check on the bank and the pay envelopes made up from it. Before drawing the currency, the individual amounts should be analyzed to determine the denominations of the coins and currency needed for filling each envelope.

On each pay envelope should be marked the name and the amount. One payroll clerk should count out the amounts, and another clerk verify them and fill the envelopes. A payroll machine is often used for filling envelopes with the proper amount. When the envelopes are delivered to the workmen, each man should identify himself in the presence of his foreman. The

clerks making payment and the witnessing foreman should sign the payroll. Any unclaimed envelopes are returned to the treasurer to be held a certain length of time for claiming, after which time they may be diverted to other uses, though the liability for them must still be shown.

The Formal Record of Cash.—For the formal record of cash, a cash book or separate cash receipt and disbursement journals are used. The separate journals are more flexible and are usually found in large concerns. When cash is adequately guarded by means of a system of paper work from the time of its receipt to its deposit in the bank, the cash receipts journal may well contain a summary only, the supporting detail being found on carefully preserved memos, such as the remittance list mentioned above. Under a voucher system, the cash disbursements journal is also a summarized record and may be nothing more than a check register (see Form 56 for illustration) in which an account is kept with each bank of deposit.

Some general principles to be followed in keeping the record, reconciling it with the bank account, and in the handling of petty disbursements will next be considered.

Principle of the Double Record.—A fundamental principle in the handling of cash is to secure a double—not a duplicate—record of its receipt and disbursement. The practice of depositing in a bank all cash receipts and making disbursements only by check should be followed invariably, because it secures this double record—the bank's record and the cashier's record. Any discrepancy is detected whenever comparison of the two records is made. When the bank's record is compared with the cash book record, the balances shown by each are seldom in agreement, chiefly because of the outstanding checks which have not yet been presented to the bank for payment. This requires a reconciliation of the two balances before proof of correctness is secured, which is usually accomplished by subtracting from the bank balance the amount of the outstanding checks. Other adjustments are sometimes necessary. These are explained and a form of reconciliation statement is shown on page 497.

DATE	VO. No.	CHECK No.	AMOUNT	BANK "A" Deposits	BANK "A" Checks	BANK "A" Balance	BANK "B" Deposits	BANK "B" Checks	BANK "B" Balance	BANK "C" Deposits	BANK "C" Checks	BANK "C" Balance
						1,792 60			4,369 40			1,241 79
Oct. 1	275	301	2,195 70	2,125 30		3,917 90	1,000 —	2,195 70	3,174 70			
2	248	302	275 30		275 30	3,642 60						
	281	303	137 53							987 40	137 53	2,091 66
3	293	304	860 47					860 47	2,313 73			

Form 56. Check Register

Most concerns object, however, to issuing checks for small amounts, and set, therefore, a minimum below which they do not issue them. For the purpose of paying smaller amounts, a petty cash fund is provided from which disbursements are made in cash. This fund is established, in the first instance, by a check on the general cash and is from time to time replenished in the same way. In this manner the double record is maintained.

Handling the Petty Cash.—There are two general methods of handling the petty cash. Under the one, entry of the check creating the fund is made as an immediate charge to some expense account and no further accounting is required. This method is based on the theory that the cash is to be used for petty expenses anyway, and might as well be so charged now as later. Subsequent amounts for replenishment of the petty cash are treated in the same way. The objection to this method, from the accounting viewpoint, is that it results in an inaccurate record of expense distribution and a misstatement of the facts in that it charges to expense an item which at the time of the charge is still a part of the general cash fund. The second and chief objection is that it encourages in the petty cashier loose methods in handling and accounting for the fund, as usually no strict reckoning is required.

The second method, known as the "imprest method," is in more general favor. This charges the original check creating the fund to an account called "Petty Cash." The petty cashier is required to secure a receipted bill, sales ticket, or other voucher for every petty cash item of expenditure, so that at all times the amount of cash in his possession added to the receipted bills and vouchers must equal the original amount in the fund. Usually the fund is a fixed amount, its size depending upon the needs of the business for these small expenditures. When the cash in the fund becomes low, the petty cashier turns over his receipted bills to the general cashier, who issues a check for their exact total to replenish the petty cash by the amount of its depletion, thus restoring it to its original fixed amount.

The expenditures as shown by the receipted bills and vouchers are classified and entered by either of the following two methods: (1) as a charge to the several accounts through the general cash

book, offsetting the petty cash replenishing check; in this case no charge appearing in the "Petty Cash" account except the item covering the original check; or (2) by an entry through the journal debiting the various expenses and other items and crediting Petty Cash. This latter method necessitates charging in the general cash book the replenishing check to Petty Cash as an offset to the journal credit of the same amount. Most accountants consider the postings to the Petty Cash unnecessary—except the original—and so check both in cash book and journal. If, however, posting to the Petty Cash account in the general ledger is made whenever the fund is replenished, this will serve to indicate the activity of the fund on the face of the ledger account—information which could just as easily be obtained from the petty cash book. The imprest method thus effects a careful accounting of the petty expenditures.

The Petty Cash Book.—The petty cash book is usually a columnar record with the amount columns to the right of the explanation space. The first column is the receipts column, the second the disbursements column, and the others show under appropriate titles the distribution of disbursements. One form of the book is shown in Form 57, with typical entries and balancing.

Sometimes the classified summary which is made the basis of the general cash book or journal entry referred to above, is shown in the petty cash book, the account titles being written in the explanation column, with the amounts opposite in the credit column underneath the $100 total. The items of this summary are then posted to the ledger, and the debit of the replenishing check to Petty Cash on the general cash book is "checked" in the ledger folio column. Or if the distributive column titles give sufficiently analyzed account titles, their totals may be posted without formal summarization, posting being shown by the small-figure ledger page in each column, as in the illustration. Where the petty cash book is used as a posting medium, of course no summarization of it is made either in the journal or the general cash book.

Keeping the Bank Account.—Several different methods of keeping the bank account are in use. Sometimes the check stub

DATE			DR.	CR.	POSTAGE	SUPPLIES	OFFICE EXP.	ETC.	ETC.
19— July	1	Check No. 51	100 —						
		Stamped Envelopes, Cards		10 —	10 —				
	2	Sales Tickets		15 —		15 —			
	3	Window Cleaning, etc.		5 —			5 —		
	5	etc.		20 —			20 —		
	7	etc.		10 —	10 —				
	10	etc.		25 —	25 —				
		Totals		85 —	125 45 —	131 15 —	121 25 —		
		Balance down		15 —					
			100 —	100 —					
		Balance	15 —						
July	11	Check No. 125	85 —						

Form 57. Petty Cash Book

is the only record kept; either on the face or the back of the stub. When the entry is made on the face, each check is usually subtracted from the previous balance and the new balance is shown. When deposits are recorded on the back of the stub—or on a special deposit interleaf—check totals and deposit totals may be carried forward from leaf to leaf without showing any balance.

A better method is to use the stub only as a memo from which to make formal entry in the cash book columns. If the principle of double record (explained earlier in the chapter) is followed, the total of the Net Cash column gives the amount of each day's deposits, and similarly, the Net Cash column on the credit side shows the checks drawn against the bank. Thus the policy of depositing in the bank all receipts and disbursing only by check has an added advantage in that it simplifies the keeping of the record of cash as well as proving it. Under this method, the cash journals may be summarized, just as the other journals, and posted to a Cash account in the ledger.

Where pads of checks without stubs are used, the carbon copy of the check will provide the data for formal entry.

Most large concerns, particularly those with branch organizations, keep accounts with several banks. In such cases it is usual to keep a check register—see Form 56—on which both deposits and checks are entered in adjacent columns, two for each bank. Sometimes, a third column is provided for showing a running balance. A study of the form will show how it is handled. From the register a formal daily report for the treasurer can be made up showing: (1) the opening balance; (2) the day's deposits; (3) the total checks; and (4) the current balance available in each bank account—very necessary information where many checks are being drawn daily.

Entering Checks on the Cash Book.—When all disbursements are by check, every check drawn must be entered on the cash book and accounted for. Entry should be made in numerical sequence with suitable explanation of any spoiled checks. The amount of the spoiled check may be left blank or entered as usual, but in the latter case the spoiled check must also be included in

the day's deposits, and entry of it made in the cash receipts journal. Neither the receipt nor disbursement is posted, each entry being marked "contra" by way of explanation. This effects an inflation of the total receipts and disbursements, but inasmuch as the bank's record also shows the inflation, an adequate safeguard is secured. The new check replacing the one spoiled is entered in regular order.

The method just discussed is perhaps the best way of recording the exchange of checks for cash. Sometimes a concern is asked to exchange its check for currency, the party making the request desiring to send the check through the mails or for some other purpose. The entry is best made on both the debit and the credit side of the cash book with reference "contra" in each case, but neither entry need be posted. This makes the cash book record check against the bank record and shows the full history of the transaction. When a check is cashed in currency, or when a check of larger amount is received in payment of a debt and the difference is returned in cash, no record need be made of the check, as only the *nature*—not the *amount*—of the deposit for the day is changed and no disbursement is made which affects the bank account. When, however, a check is issued for "change" in lieu of currency, record should be made, debit and credit, as shown above.

Reconciliation of Bank Balance.—Two methods of reconciliation are used. The one brings the bank's balance into agreement with that of the depositor; the other starts with the depositor's balance and brings it into agreement with that of the bank. The first step in the reconciliation is to discover which of the checks issued by the depositor have not been paid by the bank. This is done by arranging the returned checks in numerical sequence and comparing these with the depositor's record of checks issued. Usually the total of these few unpaid checks will be equal to the discrepancy between the two records, and so will reconcile them. The following problem is given to illustrate the method:

PROBLEM. On March 20, at the close of the day, the bank's statement showed a balance of $1,525.14. The depositor's record on the same date showed $604.19. The following checks were outstanding: No. 529B, $214.50; 542B, $379.60; 557B, $119.40; 581B, $75.20; and 992A, $132.25.

Reconciliation statement, as on March 20, 19—:

Bank balance as per bank's statement.........		$1,525.14
Outstanding checks:		
No. 992A	$132.25	
529B	214.50	
542B	379.60	
557B	119.40	
581B	75.20	920.95
True balance as per cash (or check) book....		$ 604.19

Other method:

True balance as per cash book..............		$ 604.19
Outstanding checks:		
No. 992A	$132.25	
529B	214.50	
542B	379.60	
557B	119.40	
581B	75.20	920.95
Bank balance as per bank's statement.........		$1,525.14

Other Reconciliation Factors.—Oftentimes other items than those shown must be taken into consideration when reconciliation is made. Where several bank accounts are kept and a check register—in addition to the cash book—is used to keep record of the accounts with the various banks, it may happen that checks drawn on one bank are wrongly charged to another; that checks drawn, or deposits made one day, are not credited until the next; that certain drafts deposited with the bank for collection are not credited to the depositor's account until collection is made, whereas the depositor debited the bank at the time of the deposit; again it may be that the item of bank's charges for collection has not yet been recorded; or that interest on deposit balances has not been credited, etc. All such items must be considered when reconciliation is made. Where there are many of these adjustment items to be taken account of, it may be necessary to list them in formal schedules under such heads as:

1. Bank charges, we do not credit.
2. Bank credits, we do not charge.
3. We charge, bank does not credit.
4. We credit, bank does not charge.

Examples of transactions bringing about the above debits and credits are:

1. Protest fees charged against the depositor's account, of which he has not been notified.
2. Interest on bank balance credited by bank before the depositor is notified.
3. Deposits made and charged to bank but not yet credited by bank or credited in error to some other depositor's account.
4. Checks drawn but not yet presented to the bank for payment.

When the first method of reconciliation is used, items (1) and (3) must be added to the bank's balance, and items (2) and (4) must be subtracted from it in order to arrive at the cash book balance. The following problem will illustrate this:

PROBLEM. In the bank's statement of July 1, 19—, with a balance of $675, are included protest fees in connection with the collection of checks amounting to $7.50, and interest allowed on our average bank balance of $16.67. Our deposits for June 30, 19—, totaling $250 in the morning and $100 in the afternoon, have not been credited by the bank. Outstanding checks amount to $180. Our cash book balance on July 1, 19— was $835.83.

Bank reconciliation statement as of July 1, 19—:

Bank balance as per bank statement		$ 675.00
Add:		
Deposit not included in above balance	$350.00	
Bank charge not included in our balance—protest fees	7.50	357.50
		$1,032.50
Deduct:		
Outstanding checks	$180.00	
Bank interest, not included in our balance	16.67	196.67
Balance as per cash book		$ 835.83

It will be seen that neither the cash book balance nor the bank balance is a correct statement of the cash available for checking. The depositor, in order to find this amount, will have to take account of the figures given by the bank for items he has not

known about. These items must, of course, be entered in the cash journals to bring them into agreement with the bank's record. The checking balance in the above problem is ascertained as follows:

Cash book balance	$835.83
Less: Bank charges (expenses to the depositor)	7.50
	$828.33
Plus: Bank credits (income to the depositor)	16.67
True balance available for checking	$845.00

There is not usually so much difficulty in reconciling the bank account; but where several bank accounts are maintained, it is easy to misplace debits and credits and a formal statement of reconciliation should always be made and kept as a part of the record. This reconciliation should be made every time a statement is received from the bank. The frequency of asking for a statement of account from the bank depends somewhat upon the volume of transactions handled through the bank, but it should be secured at least every month and particularly whenever formal statements of profit and loss and balance sheet of the depositor are made up.

Reconciliation Statement a Permanent Record.—The reconciliation statement should be made as a permanent record. A customary place of record is on the check stub of the same date. Where a check register is used, it should be made a part of the record there. Occasionally it is incorporated in the cash book. Wherever made it should be easily available for proof at a subsequent period. When reconciliation is to be made as of a past date, i. e., at a time subsequent to the date on which reconciliation is desired, the bank's cancellation date on the returned checks must be used to determine what checks were outstanding on that date.

Branch Cash—The Working Fund.—Frequently cash working funds must be provided for the current expenses of branches or of a factory located at a distance from the main office. When the branch or factory keeps a separate set of books, it must be charged with the advances of the working fund and a careful

audit of the way the fund is handled must be made periodically, just as would be done with an independent concern.

Such cash transfers may also be handled by the imprest method as explained above. The original advance is charged to "Factory or Branch Cash," and is deposited in the branch's local bank to the credit of the head office, the branch having the privilege of using it. The branch may draw checks against the fund, sending the canceled checks to the head office as supporting vouchers for its disbursements. These canceled checks become the basis for the replenishing checks and also for the charges for branch expenditures made on the head office books.

If the branch is a selling agency making sales for cash and on account, a modification of the system is necessary. Daily reports should be required from the branch. Its cash receipts should be deposited daily and a duplicate deposit ticket should be forwarded to the head office by the bank. The bank should be asked also to forward all canceled checks. All collections on customers' accounts should be made from the head office. This does not prevent the abstraction of cash before deposit, but it at least places control or oversight of the bank cash account in the hands of the head office and secures a careful accounting of it.

Safeguarding Cash—General Principles.—Proper safeguards for the cash should always be provided. The method of the double record—the bank's and the owner's cash book—is good so far as it goes and acts as a check on cash transactions *after* the record is made, but does not insure that the cash book record will be made correctly in the first place. There are ways in which cash received may get into the cashier's or salesmen's pockets instead of the cash book. No system or method has yet been devised to prevent this entirely. Every system must rest at some point upon the integrity of the human agent, and will fail of its full efficiency and intended results if the agent fails in the trust reposed in him. Every effort should be made to prevent both petty thievery—the abstraction of small sums at every opportunity—and systematic robbery mapped out and planned with infinite care and detail. Only everlasting vigilance and a system of "checks" will secure satisfactory results, as occasion-

ally it is the *trusted* employee who is not true to the trust placed in him.

Internal Check.—By internal check is meant the method by which employees check each other's records, control not resting entirely in any one clerk. Thus a system of record-making which combines the work of the cashier and bookkeeper under one clerk or which gives the cashier access to the ledgers is one which invites dishonesty.

Where the cashier has entire control of the cash, and besides opens the incoming mail, makes up his daily deposits, has his pass-books balanced periodically, and files the canceled checks, he has every opportunity to abstract cash and falsify his records. But where he must make detailed daily reports of the cash to the manager, treasurer, or some other officer; where he is denied access to the records—except his own cash record—and where his record is subject to periodic proof; where the mail is opened first and receipts listed by an independent clerk; where a careful system of proving receipts from cash sales and of allowing no unauthorized deliveries over the counter is employed; where every member of the office force is required to take a vacation during which his work and records are cared for by other employees—there is a very satisfactory system of internal safeguards and checks.

All these devices and systems are applicable in full only in large concerns where minute division of duties is possible. In smaller concerns where many duties have to be combined under one person, the problem of safeguarding the cash and providing other measures to prevent fraud of various sorts is more difficult. In such a concern, at least the cash received through the mail should be listed first by some one other than the cashier or bookkeeper, and the daily deposit slip should be compared with this list to see that all the cash items are included. The cash received from cash sales should also be proved daily against the sales tickets.

Statement of Receipts and Disbursements.—A periodic report of cash is usually made by means of a statement of receipts and disbursements. This statement is an abstract or summary of

the cash book, showing the total receipts from various sources and the causes of the disbursements and their totals. A simple form is given below:

STATEMENT OF RECEIPTS AND DISBURSEMENTS
For Week Ended ....

RECEIPTS:		
Cash Sales	$10,129.40	
Accounts Receivable	25,464.50	
Notes Discounted	1,500.00	
Miscellaneous: Interest, Rebates, etc.	519.20	
Total this week	$37,613.10	
Previous Balance	2,319.40	$39,932.50
DISBURSEMENTS:		
Accounts Payable	$28,492.10	
Salaries and Wages	4,193.25	
Delivery Equipment	250.00	
Advertising	1,300.00	
Miscellaneous: Interest, General Expense, etc.	920.15	35,155.50
Balance on Hand, as per cash book		$ 4,777.00

Form 58. Weekly Statement of Receipts and Disbursements

To assist in checking past deposits, an itemized record of daily cash receipts is often kept, analyzed as to gold, silver, currency, notes and checks. To be of value this record should be filed with the daily deposit tickets and should be later available for purposes of comparison.

CHAPTER 35

NEGOTIABLE INSTRUMENTS AND INVESTMENTS

Financial Aspects of Negotiable Instruments.—In the management of the finances of a business, negotiable instruments oftentimes play an important part. Notes receivable, because of their ready sale at the bank, are relatively more liquid than open accounts receivable and may therefore be used as a means of raising cash funds for use in operating the business. If a concern has good credit standing with its bank, cash funds may be secured at almost any time through the discount of its own negotiable paper, i.e., its promissory notes, up to the limit of the "line" of credit given it. A concern may also be able to convert some of its open-account obligations into notes and so defer to a more favorable date the time when the debt must be finally liquidated. The note payable thus has an important place in the financial program. Being single-name paper, it usually does not have as ready a market, however, as notes receivable.

In handling credit relations with customers, the note receivable also serves a good purpose. Merchandise may be sold originally on notes, the trade acceptance being the usual form for this purpose. Such a method gives the vendor an immediate acknowledgment of the debt and thus a stronger legal claim than the open account. For a similar reason, the conversion of past-due open accounts into notes receivable strengthens the financial manager's department in its subsequent work of collection.

Some of the more important accounting features of the negotiable instrument, both receivable and payable, will now be considered.

The Titles "Notes" and "Bills."—In business and accounting the term bill—probably because of its use in the title, bill of exchange—is frequently used as the group title for this entire class of items. Inasmuch as the accepted bill is practically identical with the promissory note, and the title "bill" is so often used inter-

changeably with the word "invoice," it seems advisable to use the terms *notes receivable* and *notes payable,* rather than bills receivable and bills payable. Some advocate the use of the title "acceptances" in order to distinguish accepted bills from promissory notes. Unless these two classes of paper are large enough in volume to justify it, little advantage is secured by this separation of their bookkeeping record. However, in the case of trade acceptances, i.e., acceptances based on particular sales of goods and therefore evidencing bona-fide commercial transactions as the basis for the extension of credit, it is sometimes advisable, because of their superior rating in the money markets, to segregate this class of acceptances from notes and other acceptances.

Relation of the Note to the Open Account.—In the preliminary discussion of the relation of the note to the open account in Chapter 16, it was pointed out that both the note and account are claims against the person liable for payment; and that the one is carried under a class title, "notes receivable," because the number of such notes is usually small, while each account receivable is carried under a separate title which designates the person liable for payment. The essential difference between the two kinds of claims is that the note is an acknowledgment of the justice of the claim and the correctness of the amount, whereas the claim under the open account may be disputed and in case of dispute requires additional proof; besides, the open account may always be offset by counterclaims and sometimes by a return of all or a part of the goods bought.

Any defenses of value under the contract for which the note was given are good defenses as between the original parties to a note; but not so as between the maker and a third party who is an innocent purchaser for value. To him the maker is liable according to the exact terms and tenor of the note. Only so could the element of negotiability be insured and the note pass from hand to hand as money. In no other sense is the note a preferred claim over the open account.

In case of bankruptcy, a claim against the bankrupt under an open account and a claim under a promissory note or an acceptance made by the bankrupt before his insolvency, rank alike, both sharing

pro rata in the net assets available for the satisfaction of the total claim of unsecured creditors.

Relative Liquidity of the Note and Open Account.—Compared with the liquidity of open accounts, promissory notes have a slight advantage in that they can more readily be turned into cash and at a better rate. Although an assignment of open accounts is possible by hypothecating them with a third party, the cost of such assignment is comparatively high and is resorted to only where the customary sources of credit are not available.

The legitimacy and the low cost of discounting notes greatly increase their liquidity. Oftentimes the question of risk, i.e., the degree of certainty of their payment when due, enters into the determination of the relative liquidity as between open accounts and promissory notes, but from this standpoint there is little, if any, difference between the two claims. Occasionally a firm, which refuses to pay its debts on open account, will meet its notes and acceptances in an effort to bolster its credit at the local banks. This phase of the question does not usually enter into the discounting operation, where the credit of the discounter is the determining factor in raising money. Of course, this may be only a temporary expedient if the note is dishonored and charged back to the bank. In some lines of business, it is very common practice to secure notes for overdue accounts. If the Notes Receivable account contains many such items, its liquidity is seriously to be doubted. However, the note is usually classed as a more liquid asset than the open account.

Method of Recording Notes.—As to the accounting phase, a record is made of each note received or given, entry being to Notes Receivable or Payable, as the case may be. If the note transactions are few in number, the general journal is used for their record. Ample explanation must be given as to the essential facts of date, maker, for what received, rate of interest, due date, etc. Notes receivable must be watched carefully, as failure to present them when due releases all indorsers.

The Note Journals.—Because the general journal does not lend itself to an easy record of the essential data pertaining to note

transactions, a separate book is oftentimes kept for this purpose. This special book may be used merely as a memorandum record for carrying the detailed explanation of the journal entry; or it may become a special journal used as an integral part of the accounting system, and, when so used, posting to the ledgers is made direct therefrom. The use of this special journal is always advisable when note transactions are numerous. A typical form of notes receivable journal is shown in Form 59. The notes payable journal differs but slightly from that for notes receivable.

If the bill book is for memorandum use only, the "Amounts Credited" columns may be omitted. If it is a real note *journal,* its debit and credit equilibrium is brought onto the ledger at posting time. This is accomplished by posting the amount column totals, no formal set-up of the summary entry being necessary unless there are extraneous items in some of the columns. The total debit is to Notes Receivable for the amount of that column's total. If it were not for the fact that sometimes notes are received in whose face amount is included not only the credit to the customer but an interest item as well, there would usually be no need of credit columns. When, however, credit columns are used, a formal summary entry should be made. If notes are numerous, a distributive column in the cash book may be used for receipts from notes, to secure a total posting to Notes Receivable account.

Referring to the left-hand page of the illustrated ruling (Form 59), the face amount of the note receivable is entered in the Notes Receivable column, and the due date in one of the narrow columns headed "When due," each of these columns representing a separate month. In this way it is easy to find the total of all the notes due in a given month and the amount of cash to be expected from their payment. For this purpose, however, it is best to use a note journal arranged by *months of maturity* on the principle of a "tickler." In such a journal one page is reserved for each month, and the notes are entered, not on the page for the month when received, but on that for the month when due. Thus a note received in January and due in March should be entered on the March page. To secure a summary of all notes received during the month for posting to Notes Receivable account at the end of each month, the various month pages are totaled and "recapped"

NOTES RECEIVABLE

DATE RECEIVED	DATE ISSUED	No.	FROM WHOM RECEIVED	AMOUNTS CREDITED				DEBIT		WHEN DUE													TIME		RATE %	
				Customer	LF	Interest	LF.	Notes Receivable	LF	Year	J	F	M	A	My	J	Jy	A	S	O	N	D	Mo.	Da		

NOTES RECEIVABLE

	MAKER	PAYEE	INDORSERS	WHERE PAYABLE	FOR WHAT RECEIVED	HOW DISPOSED					
						Date	Amount Collected	Date	Amount Discounted	Interest & Discount	

Form 59. Notes Receivable Journal (left- and right-hand pages)

on a special page. On this "recap" page, at the end of January, say, will be entered the total of the January page, giving the notes received in and maturing during January; the total of the February page, giving the notes received in January but maturing in February; etc., for each month during the year. The grand total is the amount to be posted to the general ledger, representing all notes received during January.

This type of journal gives easy control over maturities, and forecasts for a given month the amount of cash receipts from notes.

Notes Entered at Face Value Always.—Some notes are interest-bearing from their date of issue; others only after their due date when not paid. Even on non-interest-bearing notes, the law allows the charging of interest for their overdue period. From the standpoint of strict accuracy, a note payable at a future time is not worth its face value at the time of entry, unless it is interest-bearing from date at approximately as high a rate as the current discount rate. Its present value is such an amount as when placed on interest will equal the face at its due date. That value increases day by day until it reaches par or face on the due date. Because of the practical difficulties encountered in the numerous adjustments necessary under any other method of entry, universal practice countenances the bringing of the note onto the books at a slightly inflated value, i.e., face value, at the time of entry. Face value is the amount of the credit to the customer's account; it shows the amount to be collected on account of the note; and if interest-bearing, the amount on which the interest is based. Accordingly, the note transaction is entered at its face value. Where the note is interest-bearing and the face plus the interest is paid at maturity, credit is in two items, one to Notes Receivable for the face, and the other to Interest Income for the amount received as interest.

Occasionally, the interest for the period the note is to run is added to the amount of the debt, and the sum is made the face of a non-interest-bearing note. The purpose of such procedure is to secure a compounding of interest for the first period if the note is not paid at maturity. The entry of the note on the books

is a debit to Notes Receivable for its face, and credits to the customer for the amount of the debt and to Interest Income for the amount of the interest. Only a credit to Notes Receivable is made when the note is paid. The credit to Interest Income, before the interest is actually earned and received, is necessitated by its pre-estimate and inclusion in the face of the note. Were a balance sheet drawn up on that date, the entire amount of this interest would be shown as deferred income.

The Interest Accounts.—As explained in Chapter 11, when interest items are numerous, two interest accounts are usually carried on the ledger, one for Interest Income and one for Interest Cost. Sometimes, however, only the one account, Interest and Discount, is carried. Needless to say, bank discount—interest paid in advance—is the only kind of discount recorded under this account title; it must not be confused with discounts on sales and purchases, which receive different accounting treatment.

The Discounted Note.—In the booking of notes receivable discounted and accepted drafts, a problem arises because of the legal right accorded the holders of notes, in case of non-payment by the maker, to look for payment to any or all of the indorsers, provided certain formal requirements are complied with. Whenever a business house transfers a note by any method of indorsement (except the qualified), it incurs a *contingent liability,* which may become a *real liability* if the maker of the note fails to meet the obligation at maturity. Since it is the function of good accounting to present *all* the financial facts bearing on the business, it is evident that whenever a contingent liability is incurred, it should be entered in the books of account. Very frequently, however, this liability is ignored, with the result that it is eventually lost sight of altogether.

The usual, though incorrect, method of journalizing a note discounted transaction is as follows:

Cash	xxx	
Interest Cost	xxx	
Notes Receivable		xxx

Usually when an asset is sold, a credit to the account of the asset sold is correct, but not so in the case of notes sold, i.e., of notes

discounted. For the purpose of showing the complete facts, the entry at the time of discount should be made as follows:

Cash	xxx	
Interest Cost	xxx	
Notes Receivable Discounted.........		xxx

and at maturity when the note is paid by the maker:

Notes Receivable Discounted..............	xxx	
Notes Receivable		xxx

The effect of the first entry is to set up a suspense account, Notes Receivable Discounted, representing the contingent liability on the discounted note. The effect of the second entry is, first, to cancel the *credit* of the Notes Receivable Discounted account, because upon payment of the note by the maker the contingent liability ceases; and second, to cancel the original *debit* to the Notes Receivable account which was made at the time the promissory note was received but which remained *unchanged* when the note was discounted, because it was still needed to record the contingent asset which would become a real asset in case the contingent liability became a real liability.

It would be incorrect, however, to regard Notes Receivable Discounted as an independent liability account. The two accounts, Notes Receivable and Notes Receivable Discounted, must be considered together, the latter account being set up merely for the purpose of keeping notes discounted under review until their final status is determined. The purpose of the Notes Receivable Discounted account is in a way similar to that of the valuation accounts of depreciating assets. The asset account is held at its original figure, and in order to determine the present value of the asset, the valuation account must be referred to. Similarly, the asset account, Notes Receivable, is held at its original figure, even though some or all of the notes are discounted, and in order to know the amount of notes receivable actually on hand, the credit of the Notes Discounted account must be subtracted from the debit of the Notes Receivable account. In the balance sheet, Notes Receivable Discounted is not shown as a liability item, but appears as a deduction from Notes Receivable, only the difference, representing the amount of notes actually in possession, being

extended among the assets. It should be noted, however, that this contingent liability is oftentimes shown on the liability side of the balance sheet, the corresponding asset, Notes Receivable, then being separated into two items, "Notes on Hand," and "Notes under Discount per contra." Banks usually follow this practice in showing these and similar items.

At maturity of the note, the final entry (Notes Receivable Discounted debit and Notes Receivable credit) is placed upon the books as illustrated above. Usually no formal notice is received by the indorser that the note has been paid by the maker. In case the note is dishonored, prompt notice would be sent, and failure to receive such notice implies that the note has been duly paid.

What has been said above concerning notes applies equally to accepted drafts, the legal character of which is identical with that of notes, the status of the drawer of an accepted draft being the same as that of the first indorser of a promissory note. The contingent liability arising from the transfer of all negotiable instruments should usually be shown.

In some instances, however, there may be good practical reasons for not adhering to the above principle. When, for instance, large numbers of notes and acceptances are handled and the experience of the business shows that few of them are ever dishonored, or if the matter is under constant review by the financial manager, it might be considered an unnecessary requirement to make use of a separate Notes Receivable Discounted account. It must be left to the judgment of the accountant to decide which method is preferable in connection with the needs of the business. However, if no current account is kept to show the contingent liability, at the end of the period the balance sheet must be made to show the amount of discounted notes still outstanding as of the closing date of the period.

The Dishonored Note.—A note is dishonored either when the maker refuses payment upon its legal presentation at maturity or when there is sufficient evidence that he intends to refuse. When a note is dishonored, a formal protest is required in order to hold the indorsers. The payee appears before a notary public or some other officer with notarial powers, and makes oath that

legal presentment of the note has been made and that the payment was refused. The notary then takes the note and personally presents it for payment to the maker. If payment is still refused, the notary makes a certificate of protest and mails notices of the protest to all indorsers desired to be held. Such notice is sufficient basis for action to recover from the party or parties thus notified.

In making the accounting record of a dishonored note, two situations must be considered: (1) when the note is dishonored in the hands of the named payee; and (2) when the note has been discounted by him and is charged back on account of dishonor. To illustrate the entries required, take the following two cases:

PROBLEM. Case 1. Promissory note made by P. Canning for $100. Payee, D. Johnson. Due December 15. At maturity Johnson presents the note for payment, but payment is refused.

Case 2. Promissory note for $250 made by P. Canning. Payee, D. Johnson. Due December 15. Note was discounted by Johnson. Final holder is A. Andrews who presents the note for payment on December 15, but payment is refused.

The questions arising in connection with these two cases may be stated as follows: What record should be made on December 15—

(a) By D. Johnson in case 1.
(b) By A. Andrews in case 2.
(c) By D. Johnson in case 2.

(a) D. Johnson, at the time he received the note from Canning, made the following entry:

Notes Receivable	100.00	
P. Canning		100.00

and on December 15, in order to show that the note is dishonored, he may make either of the following two entries:

(1) P. Canning	100.00	
Notes Receivable		100.00

or

(2) Notes Receivable Dishonored......	100.00	
Notes Receivable		100.00

Entry (1) takes the charge out of the note account and sets it up again as a claim on Canning's open account. Entry (2) transfers the charge to a Notes Receivable Dishonored account. Entry

(2) is theoretically a better entry than entry (1), because from the latter it might be inferred that the nature of the claim has changed from a note claim to an open account claim. Such change has not taken place, however; Johnson's claim against Canning is still on the note. Therefore, entry (1) is not true to the facts.

On the other hand, entry (1) has an important advantage over entry (2), because by posting entry (1) Canning's personal account in the ledger is made to show the fact that one of his promissory notes was dishonored. This is a matter of real importance, especially if Canning should again apply for an extension of credit.

If the second method is adopted, it is clear that the posting of the entry will not show the dishonor of the note on Canning's account. It is essential, therefore, that the bookkeeper should make a special memo of the fact in that account. If the bookkeeper could be depended upon to make such memorandum entry, the desired purpose of making Canning's account show a complete record of all dealings with him would be accomplished. Any treatment consistent with accounting principles and securing a complete history in one place of all dealings with the same individual satisfies all requirements.

(b) A. Andrews, who is the last indorsee of the note, should make the following entry at the time the note is dishonored:

Notes Receivable Dishonored..........	250.00	
Notes Receivable		250.00

The Notes Receivable Dishonored account represents Andrews' claim against any or all the indorsers whom he wishes to hold responsible. Instead of this, an entry might be made corresponding to entry (1) discussed above.

(c) In case the note should be charged back to Johnson, either by Andrews or by one of the other indorsers, Johnson should make the following entries:

Notes Receivable Discounted..........	250.00	
Cash		250.00
P. Canning (or Notes Receivable Dishonored)	250.00	
Notes Receivable		250.00

It will be noticed that these two entries completely reverse the two original entries made by Johnson, viz.:

Notes Receivable	250.00	
P. Canning		250.00

at the time he received the promissory note from Canning, and

Cash	250.00	
Notes Receivable Discounted.....		250.00

when he transferred the note by indorsement.

It is to be understood that all expenses in connection with the dishonored note should be charged either to the personal account of the maker or to the Notes Receivable Dishonored account, as the case may be.

Where the Notes Receivable Dishonored account is used, it secures a good analysis of the claims against customers from the standpoint of probable realization and gives a relatively better basis for the bad debts estimate than that offered by the other manner of treatment. Of course, the use of such an account is limited to the ledger; it never appears as such on the balance sheet, being included there in the customers' accounts with ample reserve for uncollectible items.

The Classification of Notes.—The Notes Receivable account should carry only the short-time notes of customers, and thus be a truly current asset. Long-time notes and those secured by mortgage should be booked under separate account titles. For a similar reason, the notes receivable given by officers, employees, or stockholders of the corporation should have separate booking, as these notes are given for the purpose of making formal record and acknowledgment of indebtedness, usually without regard to time of payment. Such notes do not usually constitute easily convertible assets, and therefore should not be recorded under the same account with short-time customers' notes.

Notes Receivable Out as Collateral.—Notes receivable are sometimes given as collateral security for a loan. When they are so used, no bookkeeping problem is involved—though a memorandum to show their use as such should appear in the note account,

and in case a balance sheet is drawn up, a cross-reference or a footnote should indicate the liability secured by the notes. However, the sale of the notes to satisfy the loan constitutes a regular business transaction, which should be recorded in the proper manner.

Note Renewals and Partial Payments.—The renewal of notes and partial payments are other features met in the accounting for notes. The renewal of a note is rather a question of business policy than of accounting procedure. When a note is renewed, it is usually better to deliver up the old note and secure a new one in its stead. The accounts should reflect the transaction by showing cancellation of the old and receipt of the new note. If the old note is extended, a memorandum of that fact should be entered in the ledger account.

From the financial standpoint, if neither note is interest-bearing, the amount of the renewal note should be larger than that of the old note, to cover the cost of deferring payment to a future date. For example, if the old note amounts to $1,000 and is renewed two months later, the amount of the new note should be fixed at $1,000 plus 1% interest, or $1,010, although this is not often done.

In accounting for partial payments, no new accounting principle is involved. When such payments are numerous, additional space in the note journal and in the ledger should be provided for the purpose of facilitating the actual work of making the book record.

Financial Aspects of Investments.—If a business is adequately financed originally as to its working capital or if it has retained profits for this purpose, there will come periods when cash funds will be in excess of current needs. This is particularly the case in seasonal business such as many textile industries where there are separate manufacturing and marketing seasons. The demand for working capital is heavy during the manufacturing season and when collections from sales come in, more funds than the business needs become available. To secure some income from these funds, which would otherwise be idle, temporary investment of them is made, usually in securities which are not subject to wide fluctuations in price, for a big drop in price might easily

wipe out any income which such investments might earn. Government and municipal securities such as Liberty and other government bonds, certificates of indebtedness, short-term note issues put out through brokers by other businesses, etc., comprise the usual type of investment for this purpose.

In some highly speculative businesses, it is the policy to maintain a fairly large investment in stable securities as a fund on which to draw at any time in case of need.

In order to secure control of allied or auxiliary industries or to secure a "friendly" connection with such industries and a voice in their management, many large businesses make investments in the securities of others.

It is thus apparent that investments are of two general kinds, viz., temporary, to be re-converted into cash at an early date, and permanent, to be held permanently, or for longer periods than the temporary investments, for the trade or income advantages accruing therefrom. This distinction is necessary, as the two kinds are handled differently in the accounts.

Accounting for Temporary Investments.—As indicated above, these investments usually comprise bonds and short-term notes but may occasionally include seasoned preferred stocks. In accounting for these, it is customary to book them at full cost, i.e., invoice price plus brokerage or other fees. At the close of the fiscal period they are usually to be valued at cost or market whichever is the lower, the decrease in price—if any—arising therefrom being charged to an account entitled "Loss from Fluctuation in Security Prices" and closed off to Profit and Loss, being treated usually as a financial management item although sometimes shown as a non-operating item. When such securities are sold, the account is credited with the cost or carrying value shown on the debit side and an account entitled "Profit and Loss on Sale of Securities" is used to record the difference between sale price and carrying value. This also is usually a financial management item.

For purposes of record, one account termed "Temporary Investments" may suffice, or if such investments are large and varied, individual accounts may be carried with each security. On the balance sheet such investments are classed with the current assets

and their market value, if higher than cost, may be shown parenthetically, i.e., in parentheses following the title, but not extended into the money columns.

Such securities, if bonds, are frequently bought at a "price and accrued interest." This means that the purchaser pays not only the quoted price, but in addition to that the amount of interest which has accrued since the last bond interest date. Inasmuch as this interest belongs as an earning to the previous holder of the bond, the buyer in this way buys his right to that earning and so becomes entitled to the entire amount of the next regular payment of interest income from the bonds, if held until that date. Since a portion of this bond interest was thus bought outright, the real income on his investment is the difference between the amount received as bond interest and the accrued interest he paid for in the purchase of the bond. Accordingly, in recording the bond purchase transaction, the Bond or Investment account will be charged with the cost of the bond, and Income from Investments account will be charged with the purchased interest. Thus, this account, after being credited with the income when received, will show the portion representing the income earned since date of purchase, this being the true income on the investment.

Accounting for Permanent Investments.—This type of investment is also to be recorded at full cost. If the investment consists of preferred or common stocks, the price paid will be shown in the investment account; if of bonds, either the price paid may be shown or the bond account may be set up at par and offset by an entry of the difference between par and purchase price in a Premium or Discount on Bonds Purchased account. It is to be noted that the Premium on Bonds Purchased account is a debit account and Discount on Bonds Purchased is a credit account, these accounts being just the reverse of the similar accounts carried in connection with Bonds Payable account (see page 374).

These Premium and Discount on Bonds Purchased accounts are used to adjust the nominal interest earnings to the yield basis. For example, a $1,000 5% bond bought at a price to yield 4% would cost more than $1,000—say, $1,090—the exact price paid depending on the time the bond has to run to maturity. When

the bond matures and is redeemed, the purchaser or holder will receive but $1,000. During the period that he holds it, however, he will receive $50 a year interest whereas his real earning is on a 4% basis, i.e., the loss of $90 which he sustains at redemption is to be looked upon as a purchased income, an amount paid for the privilege of receiving a larger actual income than his real earnings. Thus, the loss of $90 at redemption is not a loss equitably to be borne by the period of redemption but one to be shared by all the periods during which he holds the bond. It is, therefore, an adjustment of the periodic interest income which he receives. When scientifically handled, this adjustment should be calculated on a compound interest basis. The method of doing this is explained at length in Chapter 8 of Kester, *Advanced Accounting*. However, to illustrate the *principle* involved, let it be assumed that the bond cited above has ten years to run before redemption. If the $90 premium paid is spread on a "straight-line" basis over the ten years, $9 must be charged off each year. By so doing the net earning is reduced from $50 to $41.

The following entries, set up in journal form, show the debit and credit analysis of these various transactions.

1. Upon purchase of the bond:

Bond Investments (or other appropriate title) ...	1,000.00	
Premium on Bonds Purchased	90.00	
Cash		1,090.00

2. Upon receipt of each interest coupon—assumed to be payable once a year:

Cash	50.00	
Premium on Bonds Purchased		9.00
Income from Investments		41.00

3. Upon redemption of bonds:

Cash	1,000.00	
Bond Investments		1,000.00

By maturity the Premium account will have been completely written off or amortized, so that the book or carrying value of the bond is its par or $1,000. There is thus neither profit nor loss on redemption.

Bonds bought at a discount for long-term investment are to be handled similarly, i.e., the Discount on Bonds Purchased account is to be amortized by cross-entry with the Income from Investments account. It should be noted that only where bonds are bought for long-term investment is it considered desirable and necessary to amortize the premium and discount. When held for temporary investment, they are handled as explained under that heading.

If stocks are held for permanent investment, the earnings from these investments, in the form of dividends, will be brought on the books as soon as the dividend is declared, the entry being:

Dividend Earnings Accrued..............	100.00	
Dividend Earnings on Investments..		100.00

When the dividend is received, the entry is:

Cash	100.00	
Dividend Earnings Accrued........		100.00

Comprising securities bought to hold for a long period, these stocks and bonds are usually to be carried on the books and on the balance sheet at full cost, with periodic adjustment of Premium and Discount on Bonds Purchased as explained above. Some variations in the method of booking stock investments where such comprise a controlling interest in a subsidiary company will be found discussed in Chapter 8 of Kester, *Advanced Accounting.*

A group account or separate investment accounts may be carried on the ledger. If a group account is carried, it may be used as a controlling account over a subsidiary investment ledger.

These securities, stock and bond certificates, being negotiable by indorsement, should be safeguarded as carefully as cash.

CHAPTER 36

CREDITS, COLLECTIONS, AND DISCOUNTS

Business Aspects of Mercantile Credit.—Sales constitute the main source of cash income in all businesses. In retail business, a large part of sales is made for cash. In wholesale and manufacturing, on the other hand, almost all sales are made on account. The goods are delivered to the customer and he is given a certain definite period of time within which to make payment. The account receivable is thus an intermediate point in the trading cycle of converting merchandise into cash. It is, of course, this practice of selling merchandise on account that gives rise to the credit problem. While essentially this is a financial problem, in that it involves provision of additional working capital as compared with the requirements under a cash sales basis, there are other aspects of the problem which must be considered.

The policy as to credits is intimately related to sales policies. If a very strict credit policy is in force, the amount of rejected sales orders will be larger than under a more liberal policy. Offsetting the larger sales volume, however, there will be a larger loss from uncollectible accounts. The ratio between net sales and losses from bad accounts is often taken as a measure of the efficiency of the credit policy. If only gilt-edge credits are passed, this loss can be kept to a very minimum amount. The effect of such a credit policy may be disastrous to sales and, therefore, to profits. In connection with such a measure of credit efficiency, the gross profit on rejected sales orders should be computed so that both effects of the strict credit policy may be brought under view and a sales policy formulated which, if not producing the greatest possible profit, will at least have been adopted with the knowledge that such policy will result in lessened profits.

The policy as to credits may sometimes be formulated so as to influence the production policy. In seasonal businesses this is particularly true, for a lengthening of the credit period will permit

an earlier selling period, earlier deliveries, and lengthened payment periods. This will make possible a longer manufacturing period with an even flow of production, steadier employment, easier maintenance of the integrity of the labor force, and all the desirable effects resulting therefrom.

To the financing of a business the credit policy is of course vitally related. In this connection, attention should be called also to the relation between incoming credit—i.e., credit granted the business—and the basic financial structure. Excepting in public utilities where, because of the monopolistic features, risk does not play so important a part, the net worth of any business—the owners' investment—should be at least equal to the total liabilities representing the amount of incoming credit. Stated otherwise, the ratio between total assets and total liabilities should always be at least a 2 to 1 ratio. To the extent that outgoing credit—i.e., credit granted others—may affect incoming credit, for such outgoing credit must be financed either by owners' or outsiders' capital, the credit policy of any business is closely related to its basic financial structure which places a limit on the amount of such credit which can be extended to others.

The Credit Department and Its Functions.—In the organization chart of a business, the credit department, while cooperating closely with the sales department, should always be independent of it. Otherwise, in the pressure for sales volume, it might fail utterly in the performance of its fundamental function, viz., that of determining what sales orders should be rejected because of their weak credit status. The credit department may be said to have three major functions, which, however, are not separate and distinct but flow the one from the other. These may be listed as follows:

1. The promotion of sales.
2. The selection of the customers of the business.
3. The training of those customers to pay the claims of the business against them.

The controlling policy of the credit department should usually be that of securing the greatest sales volume possible with a minimum of credit losses. If product is so priced for sale that it

returns an adequate profit margin over all expenses of operation, serious study should be made of rejected sales orders. Every such rejected order means a loss of potential profit except to the extent to which such potential profit might be reduced or even wiped out entirely by bad debts resulting from such orders if accepted. Thus, if the profit margin is 8% on the basis of a present credit policy which has resulted in a loss from uncollectible accounts of ½ of 1% of sales and in rejected orders totaling $100,000, a more liberal policy might be inaugurated whereby half of these rejected orders would be accepted with a resulting loss of, say, 4% on these for bad debts. Such a policy would be profitable for the loss would be only $2,000 (4% of $50,000) and the potential profit, excepting for this bad debts item, would be approximately $4,000 (8% of $50,000). A careful balancing of these two items, the profit from increased sales volume and the increase in loss from bad debts occasioned thereby, will result in finding the right credit policy which will effect the maximum profit from the sales effort.

The acceptance of sales orders automatically results in a selection of the concern's customers. Once customers are chosen, it is the next function of the credit department to train the customers in correct habits of settling their accounts. This is the collection function.

Credit Policies.—Credit policies are concerned first with a determination of the total amount of credit which can be granted. The granting of credit beyond a concern's financial resources has too often been a first step toward the bankruptcy courts. To extend $200,000 of credit when equipped financially to grant but $100,000 forces the use of bank or other borrowed funds, the repayment of which when due may be difficult. How much credit can be extended cannot be determined by formula but is a matter of experience. The working capital of a business has to be used for other purposes than the extension of credit to customers. It is for this reason chiefly that as a business expands, it is necessary to provide additional working capital. This is usually done by means of retaining each period a portion of the net profits instead of asking the owners for an additional investment. The relation

between owners' capital and borrowed funds is at least some indication as to whether a concern is attempting to do too large a business on its available capital.

A determination of the amount of credit to be extended to each customer is also a rather basic problem. Theoretically, with the total amount of credit available determined, it should be divided among the concern's customers in the ratio that each customer's orders or trade bear to the total sales to all customers. In practice, of course, this goal can never be reached. A rule-of-thumb method of determining the "line" of credit to be allowed each customer is explained on page 525.

The fixing of credit terms, including trade and cash discounts, is a part of basic credit policies. For the most part, terms of credit follow trade custom in each industry. The class of customers served and competitive conditions, however, may force variations in individual cases.

A final and important consideration, in connection with basic credit policies, concerns the general type of credit and collection policy to be adopted, i.e., strict or liberal and all the possible gradations between. The chief consideration here is the effect of credit policies on sales and potential profits. This has already been discussed.

Problems of Credit Granting.—A brief survey of the actual procedure followed in the handling of credits is of value to the student. This covers such points as: (1) the sources of credit information; (2) the credit file; (3) the customer's ledger account; (4) the line of credit and its application; and (5) salvaging rejected sales orders.

Many sources of credit information are available, the most important of which are the following:

1. Mercantile agency reports, such as those of R. G. Dun's or Bradstreet's. There are also several available for special industries.
2. Credit bureaus of various credit associations. These are usually local in character and serve as clearing houses of the credit experience of their members.

3. Reports by salesmen. An observant salesman is a fruitful source of credit information.
4. The concern's own ledger experience. This is always a reliable source of data, but, of course, is not available for new customers.
5. The customer's own financial statements, where such may be secured.
6. Reports by special credit investigator, where the order may justify.
7. Trade and business periodicals. An alert credit man always watches this source of information.
8. Reports by banks. Banks are continually called upon to furnish information relative to depositor's accounts and standing.

A credit file is maintained for each customer and in many cases for the leading concerns in a given industry, whether they are as yet customers of the business or not. In this file are kept the financial statements of the customer, special reports covering technical ability, experience, trade reputation, buying methods, advertising policy, business location, character of population served, etc., trade notes, and other similar items,—in fact, all data bearing on the credit status of the person. This should be kept up to date.

Every customer is given a maximum limit or line beyond which credit is not to be extended to him. This limit depends upon the customer's financial resources, reputation, ability, etc. Where the information is available, sometimes the following rule-of-thumb method is used. The customer's working capital, as computed from his balance sheet, is divided by the ratio of his total stock of goods carried to the portion of that stock furnished by the vendor.

Where the total amount of the customer's purchases is known, the portion of such purchases sold by the vendor represents the portion of the customer's working capital to be used as the line of credit given him. This is on the theory that the various creditors have a pro-rata claim against the customer's working capital. In the absence of the amount of the customer's purchases, the ratio of total accounts payable to the portion owed to the vendor

may serve as a basis of prorating his working capital to determine his credit line. In practice these methods are seldom if ever used, for so many other factors must be evaluated, but they serve as a *guide* in fixing the line of credit.

However the credit line may be determined, it is the unused portion of it which must be considered in passing the customer's current sales orders. In other words, at any given time the credit line is mortgaged by three kinds of transactions: (1) the unpaid balance of the customer's account; (2) the shipments made but not yet charged to his account; and (3) unfilled orders on which the credit has already been passed and which are in process of being filled. It is only against the balance of the credit line that new orders may be applied. In the case of the small number of customers whose credit lines are rather frequently endangered, it may be necessary for the credit department to maintain a special record which will show the three items mentioned, so that in these cases the remaining available credit may be known at all times.

In credit work it does become necessary to reject some orders. Oftentimes some of these may be salvaged by offering to send the goods C.O.D. or even C.B.D. In special cases, particularly that of a new customer just beginning business, it may be possible to secure guaranties of his account by his more prosperous friends. The credit department must endeavor to retain the goodwill of customers whose orders are rejected and the salvaging methods explained are efforts to accomplish this.

Collection Policies.—The cost of any credit granting policy is considerable even when collections are prompt. The carrying of customers' accounts when overdue either restricts the amount of credit available to other customers or results in an overextension of credit made possible by borrowing at bank or elsewhere, the cost of which is an additional expense of credit granting. How much this added cost amounts to is too often little realized. The only sound collection policy is to do all things necessary to persuade the customer to observe rigidly the credit terms granted him. To train him in doing so is one of the functions of the credit department. The use of regular follow-ups is the usual method for this. To use this method and still retain the goodwill of the customer

is an art. The credit executive should be cognizant of all those legal remedies of final resort of which use may sometimes have to be made. Stoppage in transit, right of resale, attachment, garnishment, replevin, and even bankruptcy procedures—all these methods should be known to him.

Collection Methods.—In the actual work of making collections, salesmen's reports and even their own collection efforts are valuable aids. Personal collection letters, drafts, personal calls, collection agencies, action at law—all these comprise the usual methods employed. The maintenance of a slow-accounts ledger, to which all overdue accounts are transferred and on which collection effort is concentrated, may well be used. The policy of writing off as uncollectible all accounts, say, four months old, oftentimes serves as a needed spur to collection effort, particularly where collection managers are rated by their records in this regard. Such accounts are, of course, not forgotten and collection effort still continues on them.

Use of the Customer's Account in Collections.—The monthly or other statement of account is a reminder to the customer of the amount he owes, whether yet due or not. To determine whether a customer's account is overdue, the practice of using a card on which to enter the debits and credits in his account at different line levels in accordance with the credit terms, makes an easy visualization of the status of the account. Thus, if the credit term is two months, the entries on such a customer's card would appear as in Form 60. The entries in the Balance column, made after the credits are posted and bearing the same date as the credits, show at a glance the overdue status of the account. The two month "lag" between entries in the debit and credit columns on the same line level makes this possible.

The periodic aging of the accounts is a method frequently employed to determine the credit condition. This consists of an analysis of each customer's account to determine the "age" of the balance. If the credit term is 30 days, all accounts with balances outstanding less than 30 days are not yet due. Analysis of all others is made to show their age in periods. Thus, those ranging

from 30 to 60 days are extended into an analysis column headed "30 to 60 days"; those ranging from 60 to 90 days into another column, etc., until the accounts are all analyzed into age groups. This shows where collection effort is most needed and also gives a basis for calculating the probable loss from uncollectible accounts.

A. R. Shapleigh & Co.

DATE		DR.		BALANCE		CR.		DATE	
						250	–	July	
June		1000	–	250	–	500	–	Aug.	
July		2500	–	750	–	2000	–	Sept.	
Aug.								Oct.	

Form 60. Overdue Accounts Card

Rating the Collection Results.—Several tests or methods are employed to measure the efficiency of the credit policy. The ratio of bad debts to sales has already been discussed, as has also the amount of potential profits lost on rejected sales orders. Two or three other measures are oftentimes employed which on a comparative basis show significant trends.

One of these is the turnover of accounts receivable. This is figured by finding the ratio of sales to average accounts receivable and will show a favorable trend of collections, as the rate of turnover shows an increase, and unfavorable as the rate decreases. Thus, if sales are $300,000 for the period and accounts receivable outstanding at the beginning of the period are $40,000 and at the end $50,000, the rate of turnover is found by dividing 300,000 by 45,000, the average amount of receivables outstanding. This gives a turnover rate of 6⅔. If in a subsequent period the rate should increase to, say, 7½, better collection results would be indicated.

The average number of days' sales outstanding determined by dividing the outstanding accounts receivable by the average day's sales, also shows the trend of collections, when account is taken

of the credit term. Thus, if the customers' accounts receivable are \$100,000 and the average daily sales are \$2,500, there are 40 days' sales outstanding (100,000 ÷ 2,500 = 40). If the credit term is 30 days, collections are slow for there should be not more than 30 days' sales outstanding. The average daily sales figure is found by dividing the year's sales by 360 or 365, according to the yearly basis used.

As somewhat indicative of the credit condition of the accounts, use is sometimes made of the ratio between sales discounts taken by customers and the total of such discounts offered. If the ratio tends to decrease from period to period, an unfavorable condition will be indicated, to be interpreted either as due to a slowing up of collections because of general economic conditions, or to a slackening of collection effort. If total sales for the period are \$300,000 on credit terms of 2/10, n/30, the total discount offering is \$6,000. If the discounts actually taken are \$2,000, it would indicate that ⅓ of the accounts—in sales value—had taken advantage of the discount offered. If in a subsequent period, this ratio should drop to ¼, the collection trend would be unfavorable.

None of these methods is an independent measure of collections and at best they are only indications of trends which should be watched closely from period to period.

The Relation of Discounts to Credits and Collections.—The practice of allowing discounts is quite generally followed in American business. There are two kinds of discounts in which the credit department is interested, trade and cash. These will now be explained and their purposes discussed.

A discount is a deduction from a listed or named figure. The manufacturer or wholesaler in making up his catalog for the trade usually enters his products at certain prices—called "list prices"—which are not selling prices but only nominal amounts on which the actual sale prices are based. For reasons to be explained later, he offers buyers a deduction from list prices which is called "trade discount." The usual quotation of sale prices is at so many per cent below the list prices.

Among practically all merchants it is a very common practice to bill goods to customers with settlement allowed on an optional

basis. The goods may be billed "net," i.e., the full amount shown in the invoice must be paid. Since there is a relationship between the time allowed for payment and the amount to be paid, most concerns have an established credit term, at the end of which they expect full settlement of the account, but, as an inducement for earlier payment, they offer a reduction in the amount to be paid. This is stated usually at so much per cent below the billed price, and is generally called "cash discount."

Trade discounts are very seldom recorded on the books, the actual selling price and not the list price being entered. Cash discounts are invariably recorded. If the merchant knew at the time of the sale which optional basis of settlement the buyer would choose, he could record the transaction at a net figure on that basis without entering the discount portion. This would, of course, result in a varying figure at which sales were booked. Accordingly, the almost invariable practice is to record sales at the gross amount and show by means of the Sales Discount account the acceptance of any lesser sum in settlement in accordance with the sales contract.

The Method and Purpose of Trade Discount.—As has been stated, a trade discount is a deduction from the list price and it serves three purposes. It is apparent that the prices listed in the catalog cannot be changed until a new catalog is printed and that it would not be practicable to print a new catalog to make a change in selling prices. Therefore, instead of reprinting the catalog whenever market prices fluctuate and a change in the list prices must be made, sheets containing the discounts allowed from list prices are published, the expense of which is much less than that of a new catalog.

The trade discount is used for the purpose of partly concealing the real quotation. Without the rate of discount allowed from that list, the catalog tells nothing of the real price. In this way a concern in publishing its catalog does not lay itself open to the risk of being underbid by competitors publishing later catalogs.

The third use of the trade discount is in price-making to take care of large and small customers. The large or quantity buyer

is given a better price, i.e., a greater trade discount than the small customer.

Prices may be quoted at a single discount or by means of a series of discounts, each taking as its base the net amount left after deducting the next preceding discount. Examples will illustrate:

1. Goods listed at \$250 are quoted at 20% off. The sale price here is \$200.
2. Goods listed at \$500 are quoted at 50% and 20% off.
   50% off \$500 leaves \$250.
   20% " \$250 " \$200—the same real sale price as in No. 1.
3. Goods listed at \$750 are priced at 50%, 33⅓%, and 20% off.
   50% off \$750 leaves \$375.
   33⅓% " \$375 " \$250.
   20% " \$250 " \$200—the same as in Nos. 1 and 2.

It is apparent that the *list* prices without the trade discounts tell nothing as to the *real* prices.

Methods of Calculation.—Short methods for calculating trade discounts when given in a series are often employed. For a series of only two discounts, a single rate equivalent to the two may be found by subtracting their product from their sum—always treating them as decimals. Thus, a series of 20 and 20 is equivalent to a single rate of 36, ($.20 + .20 = .40$; $.20 \times .20 = .04$; $.40 - .04 = .36$).

Another method of calculating trade discounts, and one applicable to a series of any number of discounts, is to treat the discount off as equivalent to one-minus-the-discount on. Thus, a discount of 15% is equivalent to 85% of the list. An additional discount of 10% is equivalent to 90% of the new base, or 90% of 85% of the original list, or 76.5%. Thus a continued multiplication of the "percentages on" gives the single sale-price multiplier to be applied to the list price. If the single discount rate is desired, it is secured by subtracting the multiplier from 1, or 100%. Take the series 60, 20, 10, and 10 off. This is equivalent to 40, 80, 90, and 90 on, or 25.92% on ($.40 \times .80 \times .90 \times .90 = .2592$). The single discount rate equivalent to the series is, therefore, 74.08%, ($100\% - 25.92\% = 74.08\%$).

The *order* in which the discounts of a series are used is immaterial, as the order of the factors does not affect the product.

The chief value of the single rate equivalent to the discount series is in its use for comparative purposes, as it indicates which of two discount series is the more favorable. When a large number of selling prices must be computed, all having the same discount series, the single-rate method of calculation also has a great advantage over the long method, which makes use of the series. This is true especially when the work is done with the use of a calculating machine.

The Nature of Cash Discount—Its Basic Elements.— Where goods are sold on credit with a cash discount offering, four main factors of cost, not incurred when goods are sold for cash, must be provided for. These are:

1. Credit investigation and collection expense.
2. Bookkeeping and billing expense.
3. Loss from uncollectible accounts.
4. Interest for the use of the money—credit.

The cash discount is offered to free the vendor especially from costs (3) and (4), which are the heaviest of the four.

There is a direct relation between the credit period and the loss from bad debts. Thus, if a credit period of 30 days results in a given volume of such losses, an extension of the credit term to 60 days would undoubtedly result in increased losses, assuming that all factors, such as investigation of the risk, credit supervision, collection effort, etc., remain the same. Inasmuch as the sale price must be sufficiently high to provide for loss from bad debts, the credit term enters into the determination of the price.

The other of the two main factors of cost, the interest charge on the cash sale price, represents the cost of being deprived of the use of the capital tied up in outstanding accounts.

Thus, when a discount is offered for early settlement, under normal conditions the controlling factors are the risk or cost of insurance against loss from bad debts and the interest cost. Special circumstances, however, may make it expedient to offer more or less favorable terms of settlement. Normally, terms of 2% off if

paid within 10 days, the billed price being on a 30-day credit period (2/10, n/30), measures two things: (1) the saving secured by receipt of the money 20 days earlier; and (2) the saving in the item of bad debts expense brought about by shortening the term for which credit is extended from 30 to 10 days. How much of the cash discount is for interest and how much for bad debts can be seen by comparing the current interest rate, say 6%, with the discount rate reduced to a yearly basis. A discount of 2% which effects the collection of a debt at the end of 10 days, when the net credit term is 30 days, secures the use of the money by the vendor 20 days earlier than the full credit term would effect; 2% for 20 days is equivalent to 36% on a yearly basis.

Showing Cash Discount in the Trading Section.—Opinions differ among accountants as to the proper treatment of cash discounts in the profit and loss summary at the close of a period. Some maintain that the discount is a trading or selling item, and show it, therefore, in the trading section of the statement. Their theory is that discounts on sales partake somewhat of the nature of trade discounts, that the real selling price is, after all, what is received for a particular bill of goods. According to this theory, if goods are billed at $1,000, and $980 is accepted as full settlement, the sale should be shown only at $980 on the books. At the time of offering an optional basis for settlement, however, the merchant does not know which basis the customer will accept, and he therefore enters the sale on his books at the highest offer. Later, if the customer settles on the more favorable option, the discount he takes is logically a deduction from sales.

On the other hand, if the discount is explained as a bait offered to secure customers, it should be treated as a selling cost. Consequently, on either of these two theories, cash discount would have to be shown in the trading section of the profit and loss statement, in the one case as a direct deduction from sales, in the other as a selling cost.

Correct Method of Showing Cash Discount.—Other accountants maintain that cash discount is a financial management item; that a manager, in order to secure ready funds with which to take advantage of the discounts offered him on his own pur-

chases, extends to his customers sufficient inducement to secure the early and prompt payment of their bills. The difference between the saving on purchases payments and the cost of securing early payment on sales, is the measure of the efficiency of such financial policy.

While this explanation of cash discount on sales as a cost of securing funds may have some foundation, it does not give a fully satisfactory explanation of the practice. If cash discount has been correctly analyzed as being composed of the two factors, interest and bad debts expense, there can be no question as to the place of its showing. Both factors are financial items and they should therefore be placed in that section of the profit and loss statement. In this book cash discounts will be treated as a financial management item.

Securing Information as to Neglected Discounts.—A final consideration in connection with sales discounts relates to the failure to take discounts offered. The desirability from a financial standpoint of bringing before a manager or proprietor the cost of his failure to take advantage of discounts offered him is pretty generally recognized. To show this cost, the following method of entering a purchase discount has been suggested:

Purchases	100.00	
Purchases Discount	5.00	
Vendor		105.00

Under this method the *net* amount of the bill is charged to Purchases, the discount offered to Purchases Discount, and the Vendor is credited with the billed amount. When payment is made on any of the optional bases offered, entry is made as follows:

(1) Vendor	105.00	
Cash		105.00

or

(2) Vendor	105.00	
Cash		103.00
Purchases Discount		2.00

In the case of entry (1), the net result of the whole purchase transaction is a loss or expense of the amount in Purchases Dis-

count, because of failure to take the discount. In entry (2), if the best option is taken, viz., the entire $5.00, Purchases Discount shows no balance; any less favorable option, say $2.00, results in a debit balance in Purchases Discount of $3.00, measuring the expense incurred through failure to take the best option. Unquestionably, the information given a manager by this Purchases Discount debit balance will claim his notice and immediate attention.

A sales transaction handled on a similar basis results in a Sales Discount credit balance representing the excess of the offering of discounts over the amount taken by customers and has to be treated as income additional to the booked sales income.

Inasmuch as the sale or purchase, under this method, must be booked on a cash option basis, this treatment seems to result in a departure from true cost or in the mistake of booking only *some* of the elements which enter into the cost of merchandise. The price at which a merchant can sell his product must include all direct and indirect costs and provide a margin for profit. The sales discount offered is simply one of these indirect costs. It cannot be more accurately estimated than can the salesman's salary which is a part of the sale price. It is inconsistent practice to separate the invoice price into two elements and term one *real* selling price and the other sales discount cost when the *real* selling price is still a composite item. Rather, the sale should be booked at its full invoiced price and actual costs recorded as they accrue, to be closed out against Sales Income at the end of the fiscal period.

After all, the sales policy of each concern enters largely into the determination of its normal selling price. A concern with a normal credit term of 30 days fixes its sale price on that basis; one with a 60-day credit term will, in determining its sale price, take into account the risk and interest costs of the longer credit period; and one doing a cash business will determine its sale price accordingly. However, as a means of furnishing the information necessary for guidance under a particular sales policy, sales should be recorded on the basis of the normal credit term.

To secure the information sought as to neglected discounts, it is suggested that memorandum accounts be opened for that purpose and entry be made of the expense only when incurred. Thus fail-

ure to take a purchase discount would be recorded under these or similar captions:

Neglected Purchase Discounts.....................	xxx	
Reserve for Neglected Purchase Discounts.....		xxx

At the time the books are closed, these memorandum accounts would be closed against each other, having served their purpose of giving the desired information through their inclusion in the trial balance submitted to the manager or owner.

CHAPTER 37

BALANCE SHEET VALUATION

The Two Problems of the Balance Sheet.—There are two major problems connected with the balance sheet: (1) the problem of form, and (2) the problem of content. The form of the balance sheet, which was discussed rather fully in Chapter 3, has to do with the arrangement of the items for the purpose of intelligent reading. It deals with the principles in accordance with which the asset, liability, and net worth items are to be marshaled and set up in groups and arranged within the group with a view to facilitating the comparisons between groups and the calculations made in judging the financial condition of the concern.

The second problem of the balance sheet, that of content, which was also mentioned in Chapter 3, concerns itself mainly with the valuation of the items in the balance sheet, assuming of course that all the assets and liabilities are included in the statement. A balance sheet may be correct in form but, unless its content is reliable, it has little or no value when judged from the standpoint of its chief purpose, namely, that of showing the financial condition of the concern. The problem of the form of the balance sheet has to do with the technical or mechanical side of accounting, while the problem of its content or the valuation of its items has to do with the questions of the concern's financial administration, for the solution of which the accounting department must furnish in proper form the necessary information.

Kinds of Value.—It is first necessary to state the limitations within which the principles of valuation to be laid down are applicable to the commercial balance sheet. In business many different kinds of value are found and used. Thus we have the terms, sale or liquidation value, cost value, and replacement value. By the term "sale value," when applied to a going business, is

meant the value which a willing buyer offers to a willing seller. "Liquidation value" means the value or price offered for a commodity or an entire business when the concern is winding up its affairs and going out of business. Liquidation is, therefore, forced value. There is thus a marked difference between sale value and liquidation value. The term "cost value" is understood to mean the price paid for a purchased article. From the discussion of the principles of debit and credit as applied to merchandise and to fixed assets, it has been shown that the price paid should include not alone the invoice cost but the other expenditures needed to put the article purchased in such a position that it can be used by the business in the customary way. Replacement value means the cost to replace an article. It differs from first cost mainly in that the price level may have changed between the date of the original purchase and the present time. Thus, because of the changes in prices, an article, costing $1,000 in 1914, might have had a replacement cost of $1,800 in 1917, $1,400 in 1922, and $1,650 in 1930.

Manifestly, before the principles to be followed in valuing balance sheet items can be laid down, there must be some understanding as to what kind of value is under discussion. The kind of value used in the ordinary commercial balance sheet is termed "going concern value." By this is meant the value which is applied to a going business—a business which expects to continue in operation, not one which expects to sell out to other owners nor one which expects to discontinue operations.

Source of Data as to Values.—In a going concern, the information as to value is found chiefly in the books of account. The data in the accounting records are, of course, supported by the original documents evidencing the purchases and sales. It is a necessary corollary that if the books of account are to give reliable information as to values, a correct analysis must be made of all transactions previous to their entry. Mention was made in an earlier chapter of the necessity of a clear differentiation between capital and revenue charges and the effect of failure to make such differentiation. If at the time of an expenditure a correct classification of accounts has been made, particularly of

the broad classes of assets, liabilities, and proprietorship, the accounts should reflect the true values as of the various dates of record. For purposes of detailed information, it is equally necessary that a correct classification be made of the accounts affected by an entry within any of these main groups. It has been seen that because of practical difficulties no effort is made to have the accounts reflect day by day the correct value of the various items. It is considered sufficient to bring the book record into agreement with the facts in respect to value once each fiscal period, namely, at its close. The true financial condition and correct operating results are then determined.

It will thus be seen that a correct analysis of every transaction recorded in the accounts is an absolute prerequisite to the use of the accounts for determining correct values. It is very vital that a clear line of demarcation be maintained between capital and revenue expenditures—that great care be exercised that no cost is charged into the asset group of accounts unless such cost really enhances the worth of an asset. A cost incurred for the purpose of maintaining the value of the asset is an expense charge, and repairs and maintenance charges must be very carefully distinguished from replacements. *Maintenance* has to do with those costs which maintain an asset in good operating condition; *repairs* have to do with those costs necessary to put an asset in operating condition after a condition of inefficiency has been reached which the maintenance costs have not been able to prevent; a *replacement* cost is incurred when it becomes necessary to replace some part or the whole of an asset, neither maintenance cost nor repair costs having been able to maintain the asset in efficient operating condition. Where only a part of an asset is to be replaced, it is often spoken of as a *renewal* of parts. When so used, the term "replacement" is limited to the renewal or the replacement of the whole asset.

When a renewal or replacement is made, it becomes necessary to determine whether the cost of the renewal or replacement is more than the cost of the part or the whole replaced. For example, if an asset costing originally $1,000 is replaced by one costing $1,200, there has manifestly been an addition of $200 to the value of the asset. The new asset may be an exact duplicate of the old

but if prices have risen so that the new actually costs more than the old, the books must record the asset at its new cost value. The amount by which a new asset or part of an asset exceeds the cost of the old asset or old part is called a *betterment*. A betterment is always an asset.

The student will readily see that at times it must be difficult to draw the line between repairs and replacements. In practice the line is usually drawn only when the expenditure exceeds a certain amount. This amount is not uniform and is determined by each individual business. For example, when, by replacing an asset, or some part of it, the cost of putting the asset in efficient condition for operation is less than, say, $100, it is charged as repair cost and therefore does not increase the book value of the asset. If the cost exceeds $100, an analysis is made to determine what portion of it, if any, increases the value of the asset. The amount of the betterment is, of course, a charge to the asset account, while the rest of it is a charge to some expense account.

Treatment of Special Items.—In the determination of the classification of charges, some kinds of items require special consideration:

ORGANIZATION EXPENSE. The group of expenditures explained in Chapter 26, as incident to the organization of a corporation, is recorded under the title, "Organization Expense," which is classified for purposes of the balance sheet as an asset. It is a kind of asset, however, which has no tangible value and most businesses desire to consider it more in the nature of a deferred charge to operations. It is recognized that frequently intangible assets add no strength to the business. While, therefore, in strict theory organization expense is an asset, in practice it is best to write it off against income during a period of from three to five years.

COST-CUTTING CHANGES. Another similar class of charges is met in costs incurred in making changes in the arrangement of building and other facilities which will tend to bring about a more economical handling of some phases of the business; for example, a rearrangement of a receiving and packing room in order to facilitate the receipt and delivery of goods. Where

these costs are inconsiderable, it is best to charge them against the income of the period in which they are incurred. Where, however, a big expenditure is necessary, it seems best to set up the costs under a suitable descriptive title and spread them over several periods. In other words, at the date of their incurrence the costs are treated as an asset whose value is to be written down at the end of successive fiscal periods until finally it has all been charged against the operations of the business.

INTEREST DURING CONSTRUCTION PERIOD. Where a business builds its own home, all costs incurred during the period of construction are proper charges to the costs of the construction. Thus, if a mortgage or bond issue is used as a means of partially financing construction of the building, the interest paid to the mortgagee or bondholders during the period of construction is a proper charge to the building account. Costs of this kind follow the general principle laid down previously that all costs up to the point of placing the asset in condition ready for use are proper charges to the asset.

Basic Rules for Valuation of Balance Sheet Groups.—We may now consider the principles applicable to the valuation of the various groups on the balance sheet. In the standard form of balance sheet, the assets are divided into the three groups: (1) Current, (2) Fixed, and (3) Other.

It has been seen that the assets of the current group are used for purposes of settling debts, the payment of expenses, and the purchase of merchandise. In judging the sufficiency of these assets for this purpose, it is absolutely essential to know that the values at which they are carried will be realized when they are converted into cash. From the standpoint of conservative business management, an understatement of realizable value may be made, but never an overstatement. Accordingly, the fundamental principle of valuation applicable to this group is, as usually stated, that these assets are to be valued at cost or market, whichever is the lower. When so valued, the figures at which they are carried in the balance sheet will usually represent an amount slightly less than the amount which it is expected will be realized from their conversion into cash.

Within the current group is the sub-group of prepaid expenses which require special mention in this connection. The function of this sub-group of assets is to secure an equitable distribution of expense charges between the current and the following period. It is only because certain expenditures have been made during the current period which will benefit the succeeding period, that it is necessary to set up this group of assets. Here the problem of valuation is, therefore, simply the problem of dividing the cost of the expenditures between the current and the next period on the basis of the benefits accruing to each. In some cases, the basis of division is one of time, as where an insurance policy is purchased for a definite term. The portion of the policy which has expired during the current period is the portion of its cost to be charged to the current period, the balance being deferred to succeeding periods and therefore carried as an asset. In other cases, a physical inventory is necessary to determine the distribution of the cost of expenditures, as when supplies of fuel have been purchased and not entirely consumed during the current period. The basis of the value carried over to the next period is, of course, a fair portion of the original cost. Market or replacement cost does not ordinarily have any effect on the valuation of the deferred portion.

Fixed assets are acquired as more or less permanent equipment without which it is impossible to operate the business. The time during which an asset continues in use is the customary basis for a classification of its cost as between expenses and fixed assets. Thus, an asset acquired for purposes of business operation which, however, will be used up completely during the current period, is charged immediately to some expense account, whereas an asset which will continue in use over several periods is charged to an asset account. Fixed asset purchases are never for purposes of resale. It is expected that they will continue in use until they are discarded because of failure to perform the service for which they were acquired. Neither the sale value nor the replacement cost value of such assets has, therefore, any influence on their value to the business. That value is the full cost adjusted periodically by an equitable distribution of that cost over the operations of the periods benefited by the services

rendered by the asset. This principle of valuation is usually expressed by the formula, cost less depreciation.

To the valuation of the third main group, viz., Other Assets, no general rule or principle is applicable. They are of such a miscellaneous character that each must be treated according to the circumstances in each case.

Valuation of Individual Assets.—Brief consideration will now be given to the application of these general principles to the valuation of the individual items within each group.

CASH. Cash as carried on the balance sheet is the asset which is used, without conversion, for payment of the liabilities of the business. There should, therefore, ordinarily be no problem of valuation. However, because of the practice of including checks, drafts, and notes due and in course of collection, cash balances held abroad and therefore subject to the fluctuations of exchange, and other similar items in the account, Cash, it is oftentimes necessary to examine all these items carefully and arrive at a figure which represents the amount expected to be realized from them.

NOTES AND ACCOUNTS RECEIVABLE. The claims against customers, both on note and open accounts, constitute an intermediate step in the conversion of merchandise into cash. At the time credit is extended to a customer, it is expected that he will pay the amount due. The experience of every business man shows, however, that during each period there is a shrinkage in these claims due to some customers failing to pay the amounts they owe. In valuing these claims, it is therefore necessary to take cognizance of the amount of the shrinkage. This amount is different in different businesses, depending on the length of the credit term, the policy as to investigation of credit risks, and on the rigor of the collections policy. On the basis of the experience within a given business, it is therefore necessary to make an estimate of the loss from uncollectible accounts.

The manner of making the record of estimated bad debts has already been explained. The reason for placing the amount by which the asset is estimated to shrink as a credit in the Reserve for Doubtful Accounts account rather than in the Accounts Re-

ceivable account has also been explained. The custom of estimating the amount of loss on the basis of the sales for the period rather than on the amount of claims outstanding at the close of the fiscal period has been referred to. Here it is desired to explain the manner of handling the reserve at the time claims are definitely determined uncollectible. Until a claim is determined uncollectible, it is carried as a part of the assets, Notes or Accounts Receivable. The amount of the estimated shrinkage in these assets due to failure to collect claims is indicated by the Reserve for Doubtful Accounts account. This amount cannot be applied directly to particular notes and accounts until it is definitely known that such notes and accounts cannot be collected. When that is learned, it is necessary to transfer from the reserve account the amount needed to cancel from the books the uncollectible notes and accounts receivable. This is done by the following entry:

Reserve for Doubtful Accounts............	xxx	
Notes (and Accounts) Receivable.....		xxx

PROBLEM. Assume that the accounts receivable amount to $75,000, of which it is estimated that $5,000 will not be collectible. During the succeeding period a customer owing $500 becomes bankrupt and nothing is realized on his account.

The accounts will then appear as follows:

ACCOUNTS RECEIVABLE

Dec. 31................	75,000.00	Feb. 28................	500.00

RESERVE FOR DOUBTFUL ACCOUNTS

Feb. 28................	500.00	Dec. 31................	5,000.00

It will thus be seen that the decrease in value of the accounts receivable as estimated by the amount in the Reserve for Doubtful Accounts can never be applied to the asset until it is definitely determined what particular customer's account included in the Accounts Receivable account is bad and must therefore be written off the books. Inasmuch as the Bad Debts account set up at the close of each fiscal period to indicate the loss or expense due to uncollectible accounts, has been charged as an expense of oper-

ating for that period, it would manifestly be duplicating the expense charge if a debt that proved bad were charged to the Bad Debts account rather than to the Reserve for Doubtful Accounts. Only during the first period of operation of a business are debts, if determined bad during that period, charged to the Bad Debts account. Even here, if it is expected at the close of the first period to base the estimate of uncollectible accounts on the sales for the period rather than on the amount of outstanding accounts at the end of the period, it would be necessary to charge the debts becoming bad during the period against the Reserve for Doubtful Accounts account—even though at the time of the charge it contained no credit entries—and not to the Bad Debts account. The desirability of establishing a standard routine for the handling of all items should be kept in mind. Best practice, therefore, demands that all debts shall be charged against the Reserve for Doubtful Accounts whenever they are determined to be bad, regardless of the amount held in reserve in that account. If such practice creates a debit balance in the Reserve for Doubtful Accounts, it is an indication that the estimate of uncollectible accounts made in previous periods has not, as a matter of fact, been sufficient and a larger estimate must be made for future periods.

MERCHANDISE. Merchandise is purchased for the purpose of resale at a profit. Sale price is dependent, in a free market, on the force of demand and supply and not at any given time on cost. Until the goods are sold, no profit, as a matter of fact, has been secured. Conservatism, therefore, demands that sale price should not ordinarily be used as the basis for the inventory valuation. Unless there has been a decided change in prices, it is the confident expectation of the management that at least the cost price of the merchandise will be realized when the goods are sold. Ordinarily, therefore, merchandise will be priced in the balance sheet at cost. When, however, there has been a change in price levels, particularly when the indication is that there is a generally declining market and not simply a temporary fluctuation in prices, it is the part of conservatism to value the merchandise at its replacement cost, or even at a lower figure, if stocks are large and market conditions are such that customers are withholding their

purchases until price levels have dropped still further. The basic principle for valuing all current assets requires that they be valued as nearly as possible at the realization figure. Therefore, the amount expected to be realized governs or influences the valuation basis. The valuation formula or rule-of-thumb method, in accordance with which merchandise inventory is usually valued, is expressed as cost or market, whichever is the lower. As indicated above, there are times when exception is taken to this basis. This matter is discussed quite fully in Chapter 6 of Kester, *Advanced Accounting*.

INVESTMENTS. Stocks and bonds representing the investment of temporary surpluses of cash are valued on a realization basis. Inasmuch as the tying up of cash in these securities is only temporary and it is expected that they will be converted again into cash as needed, the amount which can be realized from their sale on the date of the balance sheet is the amount to be considered when judging the financial condition on that date. A large amount of discretion must be used in valuing these securities, because of the fluctuations to which quotations on the various stock exchanges are subject. Here also conservatism does not usually authorize value at the market if the market is higher than the cost. Accordingly, the usual valuation formula is cost or market, whichever is the lower.

ACCRUED INCOME. The income accrued on the date of the balance sheet is determined on the basis of a fair distribution between the periods during which the income accrues. Thus, the income from money loaned during the current period but not due until a succeeding period must be distributed over two or more periods. Where the income is dependent on time, the portion applicable to the current period is determined on a time basis. Where the income is dependent on some other basis, such as sales or units of work done, the portion applicable to the current period is determined by the ratio of the whole to the amount completed during the present period. Thus, in the case of a contract entered into to sell goods on a commission basis, the commission income accrued during the current period will usually be based on the amount of sales made during that period.

PREPAID EXPENSES. The valuation principle for these items has been stated above in connection with the principles of valuation to be applied to the various groups of accounts on the balance sheet.

FIXED ASSETS. Fixed assets may usually be divided into two classes: (1) assets not subject to depreciation, and (2) assets subject to depreciation. The usual example of assets not subject to depreciation is the land on which a building stands. Land used for growing crops may easily be subject to depreciation. Land subject to the exploitation of the natural resources under its surface is similarly subject to depreciation. To distinguish the decrease in value of such natural resources because of the fact that they enter into and become a part of the commodity dealt in, the term "depletion" is used. Thus, a coal mine or oil well decreases in value with every unit of product taken therefrom. It is not purposed here to discuss the principles of valuation applicable in such cases. (See Chapter 17 of Kester, *Advanced Accounting,* for a discussion of depletion.)

The valuation of assets not subject to depreciation is usually made at cost. Increase in value due to changed market conditions is not usually to be taken account of.

The second group of assets, those subject to depreciation, are to be valued on the basis of original cost less the amount of depreciation accrued to the date of the balance sheet. The valuation of such assets, therefore, requires the determination of the amount of depreciation.

Depreciation arises from several causes, the chief of which are:

1. Wear and tear, due to use.
2. Decrepitude or age, due to lapse of time.
3. Obsolescence, due to a changed demand for the article or to an advance in the arts which makes the continued use of the asset uneconomical.
4. Inadequacy, brought about by several causes, one of which may be the change in the market which renders the asset inadequate for furnishing the product or service in the amount required.

Obsolescence and inadequacy, because of their very nature, are usually difficult of determination and frequently cannot therefore be considered in determining the amount of depreciation accrued at a given time. Where measurable they should, of course, be taken into account. Depreciation due to lapse of time is calculable on a time basis. Depreciation due to wear and tear is calculable on the basis of the use to which the asset has been subjected. It is in practice difficult to separate these two types of depreciation. The estimate for depreciation is in the majority of cases made on a time basis. In manufacturing establishments, oftentimes a use or output basis proves more satisfactory. These more difficult problems met in the determination of depreciation are discussed in Kester, *Advanced Accounting.* Here only the most usual method of depreciation estimate on a time basis, known as the straight-line method, will be explained.

For determining the periodic amount of depreciation of any asset it is necessary to know: (1) the original cost of the asset; (2) its scrap value, that is, the estimated value as scrap on the day it is junked; and (3) the estimated life of the asset in years or fiscal periods. The following symbols will be used in working out the formula:

V_1 = Original value
V_n = Scrap value at the end of n periods, its estimated life.
n = The estimated number of periods in the life of the asset.
D = The amount of depreciation during a period.
r = The rate to be applied to V_1 in order to determine D.

It is apparent that $V_1 - V_n$ is the amount to be depreciated over the life of the asset. The amount to be charged off periodically as depreciation is, therefore:

$$\frac{V_1 - V_n}{n}$$

Accordingly

$$D = \frac{V_1 - V_n}{n} \tag{1}$$

The amount to be written off each year is thus seen to be constant. The percentage to be applied to the original cost in

order to determine the periodic depreciation D is, therefore, found by dividing D by V_1. Hence the formula:

$$r = \frac{D}{V_1} \tag{2}$$

Having determined by careful estimate the method of calculating the periodic amount of depreciation, the problem of valuation of the asset at any given time during its life is ordinarily simple. In the case of renewal of any parts, the question of betterment comes in and requires careful handling. In unusual cases, it may often be necessary to revise the rate of depreciation in order to write off the betterment during the remaining life of the asset. Depreciation is at the best but an estimate, and unless there are major betterment items it is not usually necessary because of them to revise the estimate of depreciation. When a renewal takes place it is theoretically necessary to determine the value of the replaced part at the time of its replacement. The excess of the cost of the new part over this value is the amount of the betterment, when only the values of the old and new parts are considered. In such cases, however, the new part will not usually have value apart from the asset to which it is attached. In practice, therefore, the amount of the betterment recorded is the difference between original—not present—value of the old part and the cost of the new part. An example will illustrate the problems involved and the accounting treatment.

Problem. Assume that an asset—office equipment—costing \$1,000 has an estimated life of ten years and no scrap value. After six years of this life it becomes necessary to replace a part of the asset, estimated to have cost originally \$100, the cost of the new part being \$150. At the time of the replacement the depreciation reserve carries an amount of \$600.

The first step in booking the transaction is to transfer from the reserve account to the asset account the original cost of the part replaced. Just as in the case of bad debts, now that a part of the asset has been discarded and the amount of the decrease in value of the asset is definitely known, this amount held in suspense until the present time in the reserve account must be ap-

plied as a definite reduction in the carrying value of the asset. The entry to effect the transfer is:

Depreciation Reserve, Office Appliances..	100.00	
Office Appliances		100.00

The next step is to set up the cost of the new part which replaces that discarded. This follows the usual entry at the time of purchase of any equipment. The entry needed is:

Office Appliances	150.00	
Cash		150.00

The student will note that the office appliances account now carries a value of $1,050, of which the $50 represents the value of the betterment.

It might appear that since the renewal occurs at the end of six years there has been accumulated in the reserve by that time only $60 covering this specific part, and that therefore only $60 should be transferred from the reserve account, the other $40 being charged to a proprietorship account to represent the additional expense or loss not yet provided for by the depreciation charges during the past six years. That is not the situation, however, for if the periodic depreciation has been correctly estimated, the entire amount, $100, has already been charged off and is therefore included in the reserve. When the asset was originally installed and the length of its life estimated for the purpose of determining the periodic depreciation charge, the policy as to repairs and renewal of parts was taken into consideration. Such estimates cannot, of course, be absolutely accurate. However, until such time as a definite basis is given on which to check the amount of the over- or under-estimate, it is the standard practice to charge against the reserve the original value of the renewed part. Always at the time of discard of the entire asset—and sometimes sooner—such a definite basis is given and adjustment must be made in accordance with the facts then ascertained. A problem will illustrate the considerations involved.

Continuing the foregoing example, assume that the office appliance, now valued at $1,050 with a reserve of $500, is discarded after ten and a half years' service.

At the end of the tenth year, the annual depreciation charge of $105 will have brought the reserve account to a total of $920. Six months later, at the time of discard of the asset, there will be accrued depreciation, not yet booked, amounting to $52.50. It is, accordingly, necessary to book this amount by means of the following entry:

Depreciation	52.50	
Depreciation Reserve Office Appliances		52.50

This entry charges the current period with its share of the consumed value of the asset.

The next step is to transfer the reserve account to the asset account, to show in that account the amount of the inaccuracy in the depreciation estimate—the amount by which the actual depreciation differs from the estimate. The entry is:

Depreciation Reserve Office Appliances..	972.50	
Office Appliances		972.50

The office appliance account now shows a debit balance of $77.50, which indicates the value or amount of the asset which has been consumed but which has not been charged against the income of the periods during which the asset was used. It is manifestly inequitable to charge this amount against the income of the six months of the current period, and it is impossible to go back and spread it over the previous periods because their records have been closed. The charge must, therefore, be made direct to the Surplus account in the case of a corporation, or to a final section for extraordinary profits and losses of the regular Profit and Loss account in other cases. It may be handled by this latter method also in the case of a corporation. The entry needed is, therefore:

Surplus	77.50	
Office Appliances		77.50

In case the reserve is more than the value of the asset at the time of discard, it means that more than the cost of the asset has been charged as expense. Accordingly, the excess represents real profit and must be transferred to surplus. The necessary entry is:

Office Appliances	xxx	
Surplus		xxx

Fixed or Permanent Investments.—These represent corporate stocks, bonds, and other securities owned and held for purposes of trade or other advantage. The basis for handling and valuing these items is given on pages 518–519.

Other Assets.—In this group will be found all those assets which cannot properly be classified as either current or fixed. Items usually found here are: goodwill and other intangibles—although these are sometimes classed as fixed—organization expense; bond discount; other accounts and notes receivable; etc. Of these, the method of handling and valuing organization expense and bond discount has been explained previously. Other accounts and notes receivable ordinarily represent claims against others than trade customers and so are not current, usually being of slower realization. If considered worth their face value, they will be so shown; if not, a suitable reserve should be created. The asset, goodwill, is considered next.

GOODWILL. Goodwill is an intangible asset depending for its value upon the ability of a business to make more than normal profits. It is not usual for a business to show an asset of goodwill unless it has purchased another business and has paid for the latter's goodwill. In other words, goodwill is not brought on to the books until a purchase determines its market value. Where goodwill is purchased, it is customary to carry it at its cost value. Depreciation is not taken into account. Because of the intangible nature of goodwill and its more or less speculative value, some businesses prefer not to show it. In such cases it may be written off against surplus at any time and in any amount until it has all disappeared from the books. While, therefore, goodwill is not subject to depreciation, it is subject to this writing-off process, which usually bears little or no relationship to time. It should not be charged against the profit of any period or several periods, but when written off should be charged direct against surplus.

Liabilities.—The problem of valuation of liabilities is simple. From the standpoint of a going concern, its liabilities decrease only when they are paid off, and increase only because of services or assets purchased and not paid for. The main problem in connection with balance sheet liabilities is the determination of the

fact that all liabilities are shown on the balance sheet. This oftentimes involves the consideration of contingent liabilities. The amount of a liability may sometimes be in dispute, in which case a careful and conservative estimate of the probable amount must be made and shown.

Proprietorship.—Since proprietorship is always the difference between assets and liabilities, the problems of valuation of proprietorship are solved almost automatically if the valuation of assets and liabilities have been handled properly. There may sometimes be problems in connection with the various items in the proprietorship group. These concern surplus, undivided profits, the various reserves, and oftentimes the carrying value of no-par stocks. The problems here are largely those of determining whether a company has lived up to its contract or other agreements in the maintenance of the proper values in the various proprietorship accounts.

Conclusion.—The problems of valuation are vital to any business and intimately concern its financial integrity. In order to maintain at least the original capital investment in a business, it is necessary to make provision for the decrease in asset values due to different causes. The financial management of the business must watch this feature closely, else capital will be dissipated and the business rendered incapable of performing the functions for which it was organized.

CHAPTER 38

OFFICE ORGANIZATION FOR CONTROL

The Work of Accounting.—The preceding chapters have dealt mainly with the type of information gathered by the accounting department of a business and with the principles according to which that information is collected and presented. All facts regarding proprietorship and its changing value are recorded in the various books of accounts. Through the medium of the journals, they are analyzed as to their effect upon all the items of which proprietorship is composed. By means of the account, they are grouped into the various asset, liability, and proprietorship titles, and through its mechanism their net effect on each of the latter is determined. Periodically they are summarized and presented in two reports, the balance sheet and profit and loss statement.

All this recording, analyzing, summarizing, and reporting are merely a means to an end. In order to direct activities, one must know not only their nature but also their consequences. For this reason it is absolutely essential for one who directs an activity to have all facts regarding it. In a business enterprise, the accounting department supplies these facts when it accumulates them in the manner described above.

Distribution of the Accounting Work.—In small businesses, the work of the accounting department may be cared for by one or two persons. In others it may be so voluminous as to require the attention of a large staff of accountants and clerks. In this latter case, there must be a well-organized subdivision of the work. Inasmuch as the department serves as a centralized information bureau of financial and operating facts, the division of its work should closely correspond to the division of the principal activities that are performed to attain the aim established

by the owners of the business. The latter distribution will, therefore, be discussed first.

Organization of Business Activities.—Organization of the activities of a business may take any one of three fundamental forms. In one the power of directing all activities is centered in one person, the owner or manager, while their performance is effected by others who have no authority and who act under him. This form is known as the "line" type of organization and is usually found in small enterprises where the owner himself manages and directs. It has the advantages of permitting changes in policy to be quickly made and of securing an immediate decision on all important matters. It cannot usually be applied to large enterprises because of the owner's or manager's inability to have an expert knowledge of all the various activities of his business. Moreover, matters of routine and detail may take so much of his time as to prevent his giving the necessary attention to the making of plans and the formation of policies.

The disadvantages of the line type are partly overcome in the second form of organization, known as line and staff. Here specialists in each phase of business activities are employed to advise the owner or general manager. They make studies and researches into all problems concerning which the owner or manager desires information. They do the planning for him but have no authority to carry their plans into action: they merely act in an advisory capacity.

The line and staff type of organization has the advantage of obtaining the benefits of functional specialization while retaining the centralization of authority and undivided responsibility which are characteristics of the line type. However, it frequently has the disadvantage of being ineffective. Since the specialists are merely advisory, having no authority to execute their plans, friction often arises between them and the operating executives who sometimes refuse to follow the specialists' advice on the ground that they are more familiar with the actual operating problems and difficulties than the specialists.

The third form of organization overcomes the ineffectiveness of the line and staff type by placing authority and power of direc-

tion of an activity or group of similar activities in a specialist who prepares his own plans, has complete command over their execution, and is responsible for the results secured. Such form, called functional organization, has the advantage of permitting each specialist to exercise his own initiative and thus of securing the greatest benefits from specialization. On the other hand, it has the disadvantage of developing executives who consider business situations from the viewpoint of their own specialty without due consideration for the interests of the business as a whole. As a result, the coordination of the work of these specialists becomes a real problem and its solution is assigned as the most important function of the general administration of the enterprise. This type of organization is most prevalent among all large business enterprises and will be used in the organization of business activities described below.

Aim and Activities of a Business.—All enterprises are organized with definite purposes in view. In non-profit making organizations the aim may be education, the provision of hospital and medical service, or some other equally public-spirited undertaking carried on without profit. In business undertakings, on the other hand, the main purpose is profit making in an effort to increase the capital invested from period to period. With this as a goal, such enterprises endeavor to satisfy the demands of the public for some product or service.

Organization of the business for this purpose involves building a business structure capable of handling not only the selling activities, but also the procuring of the product, the employment of personnel, and the obtaining of the necessary funds for financing the project. In addition to this, there must be a leadership by means of which the whole undertaking can be guided in the proper channels. For this purpose, facts or data setting forth the experience of the business in carrying on its various activities must be collected and prepared for use. These different activities are designated as selling or marketing, procuring, personnel work, financing, general administration, and accounting.

Marketing.—The activity which has as its purpose the satisfaction of demand is called marketing or selling. This includes

not only the supplying of goods to the consumer but also the stimulation of a consumer demand for the product. This is effected either through direct contact on the part of the seller's representatives with the consumer or through publicity, usually called sales promotion.

To carry out this activity effectively, a factual basis for all plans and decisions may be provided through sales research. Analyses are made not only of the past experience of the business itself but also of the potential demand of different geographical territories in which the product is to be sold. A marketing program is then prepared which will serve as a plan of action.

The marketing activity is under direction of an executive known as the *director of marketing* whose chief duties are to approve all sales programs and to see that they are being carried out. He also determines the marketing policies of the business. He is assisted by three managers, one in charge of the sales research division, a second at the head of the selling section, and a third responsible for sales promotion or publicity.

The sales research section analyzes and studies the potential demand for the product. It also prepares the sales budget which forms the basis for the budgets of the other activities of the business. The sales budget is simply a formal plan or chart of sales activities for definite future periods. It shows, in whatever detail desirable, an estimate of the volume of sales to be striven for. All large businesses make such plans either formally or informally. When scientifically prepared in formal manner, it is called a sales budget.

The selling section consists of the salesmen and managers of selling branches, who represent the concern in its direct contact with the customer. The official in charge of this section, the sales manager, prepares the selling expense budget which, as stated above, is based upon the sales budget, and is responsible for carrying out the sales program by means of direct selling.

In large retail concerns, the selling section is usually divided according to products sold and at times further segregated according to price. In manufacturing and jobbing concerns, this section may be divided according to product or geographical territories.

The sales promotion section is under the direction of an advertising manager who is charged with the carrying out of the sales program through publicity. He prepares all advertising matter, and draws up the publicity budget.

Procurement in Mercantile Businesses.—The procurement function will first be discussed from the viewpoint of a trading or mercantile concern. The procurement activity involves the purchase of the product, its transportation, and its storing. In large retail establishments, this activity is often combined with the marketing activity.

Just as for the marketing activity, so here a factual basis should be provided through formal research by means of which information is collected concerning vendors, supply conditions, prices, and vendors' past performances. Among retailers with whom style and fashion are important considerations, this work includes the study and prediction of fashion trends.

The purchasing activity is placed under the direction of a *purchasing director* who is responsible for the effectiveness of the sales program through the acquisition of the proper quality of product at the lowest possible price. He prepares the purchasing program for the enterprise and the purchasing budget for which he is held accountable.

The purchasing director is assisted by a number of buyers who are grouped according to commodities to be purchased or commodities and their retail prices. Under the first arrangement, each buyer or group of buyers purchases one type of commodity. Under the second, a buyer or group of buyers attends to the purchasing of one type of commodity within a certain price range. The latter arrangement is usually found among retail stores which have to cope with the style factor.

In addition to buyers at the main office, the purchasing director may find it necessary to establish buying branches in distant states or foreign countries where there is a large market which supplies the needed commodity. These branches are placed in charge of an executive who is responsible to the director at the home office.

The transportation of the commodity from the seller after its purchase is supervised by a *traffic manager,* who sees to it that there is no delay in receiving and that advantage is taken of the lowest possible traffic rates. Inasmuch as all transportation services are usually placed under the direction of one individual, the traffic manager also takes care of deliveries to customers.

The storing of the commodity purchased is done by a *stores manager,* who keeps a careful record of all receipts and requisitions. He is responsible for receiving the merchandise and rendering a receiving report to the purchasing staff. In addition, he is required to make all shipments to customers and to render reports of these shipments to the accounting division, where the sales invoices are prepared. If the business manufactures the product which it sells, the finished product or parts are received by him from the factory for storage and shipment. He, of course, submits reports to the accounting division.

Procurement Through Manufacture.—In an industrial enterprise, the procurement activity is divided into two parts, the purchasing of raw material and its manufacture. The first is carried on through a purchasing division organized along much the same lines as the one described above. The second comprises all the production activities and is the work of a separate division.

These manufacturing or production activities are likewise divided into two parts, viz., planning and performance. The former consists not only of designing the product but also of planning its manufacture, such as preparing material requisitions and cost tickets, the determination of unit costs, and scheduling and routing the product through the various processes of manufacture. The latter part comprises not only the actual manufacturing operations but also the inspection of the product as it passes through the different stages.

In addition to these main activities, there is a group of activities that are auxiliary to those of actual manufacturing. These are often termed service or facilitation activities and comprise the production of power, the maintenance of plant and machinery, the establishment of production standards, and the manufacture and storing of tools.

The entire manufacturing division is usually placed under the direction of a *director of production,* who is on the same level of authority as the director of purchases. He has several assistants, each in charge of an important phase of manufacturing. One manages the activities relating to the planning of the product—its design, preparation of drawings and specifications, and the analysis and testing of materials. A second is responsible for the planning of the manufacturing operations. A third, the *factory superintendent,* supervises the foremen and factory workers, and directs the production processes including inspection of the product. A fourth assistant, a *works engineer,* is in charge of the production of power and the maintenance of plant and equipment. The fifth assistant, a *production engineer,* takes care of the remaining auxiliary activities mentioned above.

The work of preparing the manufacturing budget is divided by the director among his five assistants who are to budget the funds required by the activities under their charge.

Personnel Work.—The procuring of employees constitutes the work of a special department, the personnel division. In addition to employment, this division is in charge of promoting the relations between the employees and the management. It takes care of the training and education of the workers, keeps an accurate record of each employee's performance and attendance, and undertakes the welfare work carried on in behalf of all employees.

This division is placed in charge of a *personnel director* who is responsible for all personnel activities. To carry out his duties he has, at least, three assistants. One, the *employment manager,* interviews all applicants for positions, transfers employees between departments or discharges them after thoroughly considering their cases, and maintains the personal records of each worker, which are used as a basis for promotion. The second assistant is responsible for the training and educational activities which also include the preparation of vocational and intelligence tests that are to be used by the employment manager. The third assistant carries out the welfare program that is prepared by the director.

The personnel director prepares the budget in which he sets forth the funds necessary to carry on the activities of his business during the budget period.

Financing.—The work of financing consists, first, of securing funds to establish the business enterprise and, secondly, of maintaining sufficient funds to carry on operations. The first is usually the work of the promoters of the business or of members of its board of directors. The second requires the attention of a special operating division, the function of which comprises the extension of credit to customers, the collection of their accounts, and the handling of all cash receipts and disbursements.

This work is under the direction of the *treasurer* of the company who is responsible for providing and safeguarding all the funds needed. He takes care of the issue of all promissory notes and of the safe-keeping of all notes receivable and other securities. He also issues all stock certificates and bonds of the business. It is his duty to prepare the financial budget in order that he may know the total amount needed to finance operations. In carrying on his work he has, at least, two assistants directly responsible to him. One is in charge of credits and collections, and the second receives and disburses all cash funds including both those for the payment of invoices and those for payrolls. All authorization for these two types of disbursement must, of course, receive the approval of the accounting division.

General Administration.—From the standpoint of organization and operation of a business, the most important function is that of management or general administration. This function establishes the aim and scope of the undertaking. This involves the determination of the major policies of the business and the coordination of the activities of the specialists in charge of each division and of the minor policies set by them, so that all work in harmony to achieve the goal.

The establishment of the aim and scope of a business is, of course, the function of the owners and of the board of directors. They must also formulate the major policies necessary for this purpose. The coordination of the specialists and of their minor policies is the particular function of the *president* who is respon-

sible to the board of directors or to an executive committee of that body chosen to represent it. In addition, the president correlates all the budgets that have been prepared for the period and presents a summary thereof to the executive committee or to a special budget committee for its approval.

The Function of Accounting.—The direction and guidance of the activities of a business along such lines as will bring about the most favorable results—i.e., net profit and financial results—require the collection and use of information concerning past results and activities, for the past is always a guide to the future. Moreover, the coordination of activities requires a constant flow of up-to-date information concerning their progress. To collect such facts, formally record them, and to summarize them in the form of reports constitute the chief work of the accounting division.

The Organization of the Accounting Department.—The activities of this division are under the direction of a *controller.* In addition to that direction and supervision, his particular function is that of interpretation. All reports prepared by his subordinates must be interpreted to the various executives concerned and any operating inefficiencies and waste evidenced by them must be pointed out. He may have three assistants: a *chief accountant,* an *auditor,* and an *office manager.*

The Chief Accountant.—The chief accountant collects and correlates all facts concerning the transactions carried on by the operating division of the business. He devises the accounting systems necessary for the proper record so that the controller may be enabled to give the information to the operating executives necessary for adequate supervision of their activities.

The work of record-making assigned to the chief accountant, is divided among his assistants according to the division of the activities of the business. All information relating to sales is collected by one group of assistants who prepare the sales invoice, record it in the sales journal, and analyze it according to the desired classification. The sales returns and allowances are similarly treated.

All data concerning purchases and the storing of the product are collected by a second group. All purchase invoices and credit memorandums are analyzed and recorded in the purchase journal after they have been properly audited and checked against the merchandise. A careful summarized record of commodities stored is also kept by this group and serves as a check against the record maintained by the stores manager.

The determination of manufacturing costs and the recording of this class of activities are the work of a third group. All material requisitions received from the stores manager, all labor cost tickets prepared by the manufacturing division to determine the labor element in cost, and all reports concerning overhead expenses are brought together by the group so as to show the total manufacturing costs. For this purpose, all books of original entry in which such costs are recorded are maintained here.

All information concerning the amount to be paid to employees is received from the personnel division and handled by a fourth group. This information is used as a means of preparing and analyzing the payroll. Upon completion, the payroll or a copy thereof is sent to the paymaster of the finance division for payment.

The recording of all data relating to the finances of the business is done by a fifth group. A record of cash received and disbursed is received by the latter from the finance division and used as a basis for the entries in the cash receipts and disbursements journals. The maintenance of a record of all investment securities, promissory notes, and acceptances, issued or received, is also part of the work of the group.

In addition the fifth group maintains the customers and creditors ledgers. All data in the books of original entry affecting the customers ledger are posted thereto. The status of each customer's account is reported by the group to the credit and collection section of the finance division at definite intervals and upon request. The amounts relating to purchases and purchase returns and allowances are transferred from their respective journals to the creditors ledger which provides the finance division with the necessary information for the payment of obligations.

A sixth group takes care of the general ledger in which an accurate record is kept of all asset, liability, and proprietorship items, both vested and temporary. It also maintains the stock certificate and subscription ledgers, journals, and other records if these are maintained at the company's offices.

A seventh group of assistants to the chief accountant prepares the balance sheet, the profit and loss statement, and all supplementary reports. Similar intermediate reports in which actual results are compared with budget estimates are also prepared by this group.

The Auditor.—The second assistant to the controller is the auditor who, with his staff of assistants, verifies the accuracy and propriety of the information sent for record to the accounting division by the operating directors of the business. All sales invoices are audited as to the correctness of the quantities, extensions, and amount. All purchase invoices are compared with purchase orders and receiving reports as to quantity, price, extensions, and amount, and are scrutinized for the approval of an officer of the purchasing division. Labor and material cost tickets, and manufacturing cost sheets are also audited for their accuracy and for the purpose of ascertaining whether these costs are in accord with estimates. Attendance records of employees received from the personnel division are compared with the performance records which, in the case of the factory workers, are the labor cost tickets that are received from the manufacturing division. The rates of pay are verified against the employees' contracts.

The Office Manager.—The third assistant, the office manager, is in charge of the correspondence section which furnishes stenographers and typists to all the divisions of the business and attends to the outgoing and incoming mail.

Other Accounting Assistants.—If the controller finds that his duties of analyzing and interpreting accounting reports become too burdensome, he may divide his work among additional assistants in accordance with the main divisions of the business activities.

STOCKHOLDERS OR OWNERS
BOARD OF DIRECTORS AND PRESIDENT
GENERAL ADMINISTRATIVE FUNCTION

- MARKETING—DIRECTOR OF MARKETING
  1. Sales Research Section
  2. Selling Section
  3. Sales Promotion Section
- PROCUREMENT—
  - DIRECTOR OF PURCHASING
    1. Purchasing Research Section
    2. Buying Section
    3. Traffic Section
    4. Stores Section
  - DIRECTOR OF MANUFACTURING
    1. Product-Designing Section
    2. Scheduling and Routing Section
    3. Factory Section
    4. Power and Maintenance Section
    5. Production Standards and Tools Section
- PERSONNEL—DIRECTOR OF PERSONNEL
  1. Employment Section
  2. Education Section
  3. Welfare Section
- FINANCING—TREASURER
  1. Credits and Collections Section
  2. Cash Receipts and Disbursements Section
  3. Investment and Securities Section
- ACCOUNTING—CONTROLLER
  1. Audit Section
     - a. Sales Audit
     - b. Purchases Audit
     - c. Audit of Manufacturing Cost Data
     - d. Audit of Payroll Data
     - e. Audit of Treasurer's Cash and Securities Record
  2. Accounting and Report Section
     - a. Sales Recording
     - b. Purchases Recording
     - c. Manufacturing Cost Recording
     - d. Payroll Preparing and Recording
     - e. Cash Recording and Customers' and Creditors' Accounts
     - f. General Ledger Recording
     - g. Preparation of Accounting Reports
  3. Office Management Section
     - a. Stenography and Typing
     - b. Filing and Clerical
     - c. Mail, Incoming and Outgoing

Figure 61. Organization Chart

In addition to his duties mentioned above, the controller is required to prepare a budget of the funds necessary to finance the operation of his division in the same manner as the other divisional directors.

Organization Chart.—In order better to visualize the functional type of business organization explained above, a chart of the organization is shown (Form 61). This should be considered merely a suggested form of organization. Although it rests on sound principles of organization and procedure, local conditions in a given instance almost always require some departures therefrom.

Authority and Responsibilities.—The executive in charge of each functional division of the business has full authority over its activities. He is permitted to develop both the minor policies that relate thereto and also his own methods of securing satisfactory results. He is not interfered with in his work by any of his colleagues. Each is on the same level of authority as the other but each is supervised by the president and board of directors who are their superiors.

In turn, each divisional director is held responsible by the president for the results accomplished by his division. The president, in turn, is responsible to the board of directors, who must periodically render an accounting of their trusteeship to the owners.

With this description of the way in which the organization of the accounting department fits into the organization of the operating departments of the business, there will next be considered the use of accounting to the various functional executives in the control of their respective activities.

CHAPTER 39

ACCOUNTING FOR EXECUTIVE CONTROL

The Functions of Accounting.—It is to be expected that every student looking forward to a professional career in accounting will have a knowledge of the place of accounting in the business organization and an appreciation of the various services it should perform. Even more necessary is it that the student of general business management, not expecting to follow accounting professionally, should know the various kinds of service which an efficient accounting department should be able to give and should have a background of training in accounting such as to enable him to appraise and interpret properly the data and information furnished by it. Without this he is very seriously handicapped in his preparation; for increasing use is being made of accounting and statistical data in business management.

In any business, but particularly in large organizations, the accounting department has three main functions:

1. Making the record.
2. Drafting reports.
3. Interpretation of records and reports.

Making a record of business transactions has always been considered the basic and primary function of accounting. The art of bookkeeping concerns itself with this. However, one should never lose sight of the fact that records are not made for their own sake; they must have some utility, they must serve specific purposes. The main purpose of records is to serve as the basis for reports. The record-making arm of the accounting department reaches into all operating departments, makes a record of what is taking place there, summarizes the detail, and presents the summary in the form of various kinds of reports to those executives who need the information for the proper conduct of their offices. Formerly, the work of the accounting department

was held to cease at the report-making stage. Modern accounting, however, looks upon the interpretation of records and reports as a most important part of its service. Too often reports fail in their greatest usefulness because their full or true significance is lost sight of, due to the fact that many executives do not have an understanding or appreciation of the meaning of figure data. It has, therefore, been necessary for the accounting department to assume this additional function or service of interpretation. Report-making and interpretation require a broad exercise of the analytical processes, to such an extent that analysis is often denominated an additional function of accounting. Though of great importance, rather it is a method or process by means of which the accounting department is able to perform the functions cited above.

In accounting, as in all other business activities, there are standards by means of which the work done may be measured and evaluated. Accounting is not concerned merely with records, reports, and interpretation, but equally with their proper standard or quality. What constitutes good records and reports is largely determinable by their degree of conformity to two standards: (1) standards of form, and (2) standards of content. There are certain features of form which, although not entirely uniform, are quite generally accepted as right and proper. As to content, that report or record is good which serves most easily and completely the purpose for which it was designed. Records and reports are designed as aids to business management, which is concerned chiefly with securing and establishing suitable controls of business activities. In this chapter it is the purpose to consider some phases of the relation of the functions of accounting to the problems of business control.

What Is Business Control?—In the conduct of business, certain aims or goals must be kept constantly in mind. The chief of these are:

1. Preservation of the integrity of capital investment.
2. Securing a return on such investment commensurate with the risk involved and the effort put forth, after due consideration is given to the general economic situation.

Preservation of the integrity of capital is vital to the continued existence of the enterprise. The employment of capital without adequate return is misdirected effort. The degree to which these two aims are carried out is the measure of success of the undertaking. The term, business control, is used to indicate a planned or specific policy, an endeavor, on the part of management to accomplish these aims. The way in which a business organizes itself for the purpose is the main subject of Chapter 38. There the various types of organization are discussed and the way in which they seek to reach their goal is indicated.

In a large concern, while ultimate responsibility centers in the general manager, not only because of the size of his task but also to secure specialized knowledge and ability in the direction of the various phases of business activities, he is forced to delegate varying degrees of his responsibility to his assistants and they in turn to their assistants until all activities are cared for. Along with this delegation of responsibility must go a delegation of authority adequate to accomplish the specific tasks for which each is held responsible. Otherwise the injustice inherent in such a situation will result in a breakdown of the morale so necessary to the success of any undertaking. The task of the general manager thus becomes one chiefly of directing, coordinating, and measuring. Alliteratively speaking, one may say that his task is to organize, deputize, and supervise. As a matter of correct principles of organization, while the planning function should be separate from that of the carrying out of policies—just as in government the legislative and executive functions are best definitely segregated—in practice one seldom finds these two functions sharply defined. The board of directors theoretically lays down policies, but their initiation and planning come usually from the same officials who will be called upon to carry them out. This procedure secures a keener and more whole-hearted endeavor to secure results; for it is easier, as a matter of human nature, to put forth one's best effort to bring about the successful outcome of that which originates in one's own thought or mental workshop than of that which comes from others. The wise executive, therefore, plants the germ of the policy or plan he considers vital and permits his assistants to develop it so that in its final form

it seems to be theirs rather than his. The submission of plans and policies to a board of directors for testing and counsel, however, should result in the elimination of immature plans of doubtful outcome and the assumption of a measure of responsibility for those finally adopted.

The problems of business control arise out of the various functional activities. Basically, these activities center around two functions: (1) that of securing or producing a commodity or service to deal in, and (2) that of selling it. While other activities are probably of equal or even greater importance, they may be looked upon rather as facilitating than as main activities. Thus, those activities connected with finance, personnel, and general administration arise out of the activities of procurement and selling. Specifically, however, problems of control are encountered all along the lines of organization. They are concerned with the activities of sales, manufacturing, buying, cash, income, expenses, etc. With plans and policies fitted into the general economic situation, a proper control of these specific activities will secure the best possible results.

Relation of Accounting to Control.—It is chiefly with the place of accounting in connection with the controlling of business activities that this chapter is concerned. Reference has been made above to the relation between business plans and policies and the general economic situation. The securing of the data relative to the general economic condition, their summarization in the form of reports, and their interpretation comprise chiefly the field or function of business statistics. This field, in the main, handles data which are external to the business, although in evaluating the relation of the business to the general economic situation internal data must be used. Accounting, on the other hand, limits itself to the handling of internal data; however, the interpretation of these data will oftentimes require a knowledge of their relation to external data. Accounting and statistics, therefore, are the chief instruments used by management to secure effective control of business activities. A consideration of the use of accounting for this purpose, centers around its three functional characteristics, viz., (1) the accounting system, (2) accounting reports, and (3) the interpretation of the reports. The first two of these will be

considered in this chapter, while Chapter 40 will treat some phases of the third characteristic.

The Accounting System.—It is not the purpose here to discuss the technique of system building—planning the books of account, organizing the paper work, and securing an adequate system of internal check; this is a distinct field in itself. Here, effort will be made to point out the main considerations to be kept in mind in developing a suitable classification of accounts. The accounts are the information heads under which the detailed data are analyzed and sorted out. They are the source of the data from which the reports are drafted. The importance of a good classification of accounts is apparent, and it must be so developed and organized that the information for the various accounting reports needed by management can be secured in the easiest possible manner. Some general principles in accordance with which the classification of accounts should be organized will now be considered.

The Chart of Accounts Must Fit the Internal Organization.—A chart of accounts is a list or schedule of account titles grouped or classified in accordance with a scheme of classification adapted to the needs of a particular business. It hardly needs to be said that, since the basic function of the accounting department is that of making a record of business activities, such record should be made in accord with the internal organization of the business. It is of course desirable, for example, to know the total payroll of the plant, as that represents the amount of cash that will have to be provided and disbursed—an important item in the control of finances. If, however, the factory is departmentized and responsibilities have been delegated to department heads, the expense of operating individual departments cannot be controlled through information as to the amount of the total payroll. The fact-gathering machinery must be so organized and installed that it will secure all of the data, in whatever detail required for furnishing the information needed by executives for managing their own activities and by supervising officials for securing checks and measures on the results accomplished by their assistants. Measurement of the results accomplished is always a vital factor

in the control of subordinates to whom specific responsibilities and authority have been delegated. The accounting system must be developed in accordance with the lines of internal organization so that information can be gathered in terms of individual and group responsibilities. This is particularly true in the case of budgetary operation. A budget is a formal plan of operation which sets certain limits or goals of achievement as a guide for the operation of the business during a definite period of time. These plans are drafted in whatever detail may seem desirable, thus placing specific responsibilities on executives to secure planned results. The accounting system must match exactly the plans and delegated responsibilities, as only in that way may the results achieved be measured against the planned achievements

Effect of External Requirements on Chart of Accounts.—In building a detailed chart of accounts, while the requirement for internal information must usually control the organization of the accounts, due consideration should be given to external requirements. There is an increasing tendency toward the exercise by government of some measure of control over private business. This is seen particularly in the case of public utilities—railways, light, power, gas, water, and telephone and telegraph companies. Uniform systems of accounts for such companies are prescribed whereby the information desired by the controlling agencies of the government may be secured from all on the same basis, making possible its use for comparative purposes. For taxing purposes, reports of business activities must be filed in prescribed form. Some jurisdictions require of all corporations the annual filing of reports of financial condition.

Some trade associations, in carrying on the work of collecting, analyzing, and publishing financial and operating data of the industry, have developed uniform systems of accounting, the use of which greatly facilitates the compilation of the reports to the association.

In developing a system of accounts for a business, consideration must be given to all these demands for information so that it may be secured directly from the accounts or with the least possible analysis and summarization.

Principles of Account Classification.—Accounts may be classified from many different viewpoints and for many different purposes. In general it may be said that any classification of accounts is good which serves well its intended use. However, certain general principles in addition to those discussed above, should be observed in all classifications. The most important of these are:

1. The basic classification must be sound.
2. Classification proceeds from the general to the particular or specific.
3. Arrangement or order of accounts should follow their order in the financial and operating statements.
4. The account titles chosen should be suggestive of their basic classifications.
5. Not only must basic information titles be chosen—sometimes called objective classification—but these titles must be distributed or applied functionally or departmentally.
6. Provision must be made for future expansion.

Basic Classification.—While other groupings of accounts have been made, the classification used here from the beginning has been a three-phase one, consisting of an asset, liability, and proprietorship nomenclature. The third group of accounts, proprietorship, is further divided into the two sub-classes, temporary and vested, as explained in Chapter 8. At the end of the fiscal period, after the ledger has been closed, there appear only asset, liability, and vested proprietorship accounts; but during the fiscal period, the temporary proprietorship accounts come into being and certain asset and liability accounts take on a mixed character resulting from the method in which the record is kept. This method is dictated not by a pure accounting theory, but by a theory designed to accommodate itself to the practical requirements of the average business. It is because the practical method of making the record falls short of the theoretically exact method, that adjustments must be made before summarizing.

As stated above, in judging the fitness of a particular classification, the end and purpose for which it is made must always be

the criterion. Any classification of accounts must, therefore, have in view the basic fact that all accounts lead up to the balance sheet and profit and loss statement, and that they must provide the data necessary for the summaries of these statements. As stated above, classifications may be made from many different viewpoints and for many different purposes, but a classification which is logical and carries titles clearly indicating the purpose for which the accounts are intended, and which therefore needs little or no explanation, is a satisfactory fundamental classification. The three-group basic classification—assets, liabilities, and proprietorship—meets these requirements.

A two-group classification—real and nominal—is frequently used. Under this classification, asset and liability accounts are grouped as real, and proprietorship accounts comprise the nominal class. This is the standard classification. The student should be familiar with it, although the meaning of the groups is not so apparent as in the case of the three-group classification, referred to above.

Detailed Classification—Account Titles and Their Arrangement.—The basic classification having been established, a detailed classification may be developed from it by subdividing the main groups, usually objectively, i. e., in accordance with the object concerning which information is sought. Thus, with the three-phase classification adopted above, the asset group is subclassified objectively into cash, notes and accounts receivable, stock-in-trade, plant and equipment, etc., the procedure being from general to particular. For the most part, it is the detailed classification which will follow the lines of the organization chart.

As to the actual set-up of a detailed classification, the information which is considered most important should govern the adoption of a plan for main and subsidiary accounts, sometimes termed primary and secondary. It must be apparent that no single classification of accounts will secure directly all the possible types of information needed. Subsequent analysis, therefore, becomes necessary. To keep this to a minimum is the desideratum. If, for example, the departmental organization governs the set-up of the detailed classification, the main or primary accounts will

gather the information under departmental titles, under which subsidiary or secondary accounts will secure the detail. The standard form of profit and loss statement, showing functional organization, illustrates this point. The costs of operation are gathered under the groups, selling expense, general-administrative expense, and financial management. Subsidiary titles under each may cover such items as sales salaries, office salaries, financial department salaries; sales department stationery and supplies, office stationery and supplies, financial department stationery and supplies, etc. While a specific account is not set up with each department, the detailed objective classification is so developed that grouping will give a primary functional classification. On the other hand, a primary objective classification might have a subsidiary functional set-up. Here, the group title might be, for instance, Salaries, and subsidiary accounts would be arranged functionally. The following schedule will show the difference:

Primary—Functional	Primary—Objective
1. Selling Expense	1. Salaries
a. Salaries	a. Selling
b. Stationery and Supplies	b. General Administrative
	c. Financial Management
2. General Administrative Expense	2. Stationery and Supplies
a. Salaries	a. Selling
b. Stationery and Supplies	b. General Administrative
	c. Financial Management
3. Financial Management Expenses	
a. Salaries	
b. Stationery and Supplies	

Either type of classification can be worked out nicely by means of subsidiary ledgers. In the one case, the general ledger will carry the functional classification while the subsidiary ledger will carry the detail objectively and in the other case, the reverse set-up will be followed. While a functional and an objective classification on a single ledger are not necessarily mutually exclusive, carrying both is awkward and complicated. The method of the general and subsidiary ledger classification is adaptable also to an analysis of information by territory, branch, plant, or other

basis. It should be noted, however, that where the general ledger carries a functional classification, complete objective information is nowhere directly available but will have to be secured by summarization of the particular information titles of the subsidiary ledgers. Thus, total salaries paid can be determined in this way. Where the general ledger gives this objective information, then complete information by functions is available only by analysis.

The principles governing the choice of account titles have been referred to above and were stated in Chapter 6. As to the order of arrangement of accounts in the ledger, one principle governs: Arrange all accounts in such a manner as to facilitate the drawing up of the final statements. Thus, assets should come first, arranged in the degree of their liquidity or availability, and each valuation account following its particular asset. Liabilities, coming as they do after the asset accounts, should be arranged in a similar order. Next should come the vested proprietorship accounts, the summary Profit and Loss account, and the income and expense accounts in the order in which they are to be used in the statement of profit and loss.

A trial balance taken from a ledger in which the order of arrangement of the accounts is strictly in accordance with this principle, is called a "classified trial balance."

Functional Application of Account Titles.—Once the objective classification of accounts is made, these same titles may be distributed departmentally. Expense and income accounts lend themselves to functional application more generally than do asset and liability accounts, although at least a partial functional set-up of asset and liability accounts is often desirable and advantageous. If an objective classification calls for the title "Stenographic Salaries" for proper departmental control, it would be desirable to gather such information departmentally as under: Stenographic Salaries—Sales Department; Stenographic Salaries—Controller's Office; Stenographic Salaries—Factory; etc. How this can best be done will be seen below under a numeric classification of accounts.

It is obvious that any system of classification should make such provision for an expansion of account titles as will not require at such time a reconstruction of the whole scheme.

Numbered Accounts.—In large organizations requiring a minutely detailed classification of accounts, the use of numbers as well as names is a marked advantage. Where this is done, a logically developed system of numbers may sometimes be made to denote the main class to which a particular account belongs and also the subsidiary division. The number assigned may indicate both the objective and functional classification. The allotment of a series of numbers to a certain kind of accounts not only classifies them in an orderly manner by grouping them according to their resemblances and separating them according to their differences, but the notation also greatly facilitates locating them and saves much time and effort in indicating them on vouchers, journal entries, etc. Also posting records may be more easily checked as to their general correctness by an official who has only a general knowledge of the system. As an illustration, if the asset accounts have the general classification of 1 and the expense accounts have the general classification of 9, it needs only a cursory survey of voucher or other ledger posting source to see whether an expense item has been charged to a capital account or vice versa.

The framework of the classification should be so constructed that any account, new or old, not already included in the scheme, can be inserted without disturbing the general order. If this is done, the system can never become obsolete in the sense of becoming impracticable, because changes can be inserted in their appropriate places as soon as they occur.

The different schemes or symbols which have been developed from time to time are the Dewey decimal system with its variations; the mnemonic system; and a combination of the two. The Dewey decimal system is undoubtedly the most complete and highly perfected of any in theory and, as the name indicates, is a combination of figures and periods giving a symbol of almost unlimited expansion. While the use of the straight decimal system offers an infinite number of possible combinations, it is in no way practical for general use, chiefly because a voluminous key is necessary even to interpret the symbol.

The mnemonic system, as its name indicates, was devised for the purpose of supplying a symbol which would be suggestive

and which would indicate the object that it was intended to identify. The mnemonic symbol consists of a combination of letters and figures with the occasional use of a period or a dash. In order to classify completely any object in a large system, according to general classifications and special subdivisions, it is sometimes necessary to use five, six, or seven letters to identify one particular piece of machinery. In this case also, the use of a key becomes a necessity. The mnemonic system pure and simple is more often used for identifying machinery and tools or other stock, kept in a factory stock-room.

Numeric Chart of Accounts Illustrated.—In the development of a numeric system it is necessary first to assign numbers to the main groups or classes of items. For this purpose, usually the basic three-phase classification is used with a subdivision of the proprietorship group. A suggested grouping, with assigned numbers, follows:

1. Asset accounts.
2. Liability accounts.
3. Vested proprietorship accounts.
4. Summary or clearing accounts.
5. Income accounts.
6. Expense accounts.

These general groups may be further subdivided indefinitely into groups of nine, keeping in mind continually that the process of division should be from general to particular and that the progress should be gradual. An illustrative classification follows:

1 ASSET ACCOUNTS

- 11 CURRENT ASSETS
  - 111 Cash in Bank
    - 1111 Local Bank
    - 1112 New York Bank
    - 1113 Chicago Bank
  - 112 Petty Cash Fund
  - 113 Notes Receivable
  - 114 Accounts Receivable
  - *114V Reserve for Doubtful Accounts

* The "V" suffix indicates a valuation reserve applicable to the like numbered account.

- 115 Merchandise
  - 1151 Inventories Raw Materials
  - 1152 Inventory Goods in Process
  - 1153 Inventory Finished Parts
  - 1154 Inventory Finished Goods
  - 1155
  - 1156
- 116 Temporary Investments
- 116V Reserve for Market Fluctuations
- 117 Accrued Income
- 118 Prepaid Expenses
- 119

12 PERMANENT INVESTMENTS

- 121 Bonds
- 122 Preferred Stocks
- 123 Common Stocks
- 124 Leases
- 125 Real Estate

13 FIXED ASSETS

- 131 Land
  - 1311 Used and Useful in Operation
    - 13111 Details in Subsidiary Books
  - 1312 Held for Speculative or Investment Purposes
    - 13121 Details in Subsidiary Books
- 132 Buildings
- 132V Depreciation Reserve Buildings
- 133 Machinery
- 133V Depreciation Reserve Machinery
- 134 Tools
- 135 Patterns
- 135V Depreciation Reserve Patterns
- 136 Furniture and Fixtures
- 136V Depreciation Reserve Furniture and Fixtures
- 137 Etc.
- 138
- 139

14 INTANGIBLE ASSETS

- 141 Goodwill
- 142 Patents
- 143 Trade-Marks
- 144 Franchises

15 Other Assets
- 151 Organization Expense
- 152 Advertising Deferred
- 153 Bond Discounts

2 LIABILITY ACCOUNTS

21 Current Liabilities
- 211 Notes Payable
  - 2111 Notes Payable Banks
  - 2112 Notes Payable Trade Creditors
- 212 Accounts Payable
- 213 Accrued Expenses
- 214 Deferred Income

22 Fixed Liabilities
- 221 Bonds Payable

23 Other Liabilities

3 VESTED PROPRIETORSHIP ACCOUNTS

31 Capital Stock
- 311 Preferred Stock—Cumulative
- 312 Preferred Stock—Non-Cumulative
- 313 Common Stock—Class A
- 314 Common Stock—Class B
- 315 Capital Stock Subscriptions

32 Surplus
- 321 Capital Surplus
  - 3211 Premium on Stock
  - 3222 Re-appraisal Surplus
- 322 Appropriated Surplus
  - 3221 Reserve for Sinking Fund
  - 3222 Reserve for Contingencies
  - 3223 Reserve for Pension Fund
- 323 Unappropriated Surplus
  - 3231 Undivided Profits
  - 3232 Earned Surplus

4 SUMMARY AND CLEARING ACCOUNTS

41 Profit and Loss

42 Cost of Goods Sold

43 Manufacturing

5 INCOME ACCOUNTS

- 51 SALES
  - 511 Merchandise
    - 5112 By Departments, etc.
  - 512 Consignments
    - 5121 Details in Subsidiary Records
- 52 FINANCIAL MANAGEMENT INCOME
- 53 OTHER INCOME

6 EXPENSE ACCOUNTS

- 61 MANUFACTURING
  - 611 Wages
  - 612 Raw Materials
  - 613 Freight on Raw Materials
  - 614 Manufacturing Expenses
- 62 SELLING EXPENSES
  - 621 Salaries
    - 6211 Details in Subsidiary Records
  - 622 Traveling Expenses
  - 623 Commissions
  - 624 Advertising
  - 625 General Selling
- 63 ADMINISTRATIVE EXPENSES
- 64 GENERAL EXPENSES
- 65 FINANCIAL MANAGEMENT EXPENSES
- 66 OTHER EXPENSE

From this outline, it is apparent that even though each series is limited to nine as in the Dewey decimal system, it may be indefinitely expanded to include a large number of accounts, and will be elastic enough to accommodate any number of future additions to the system. It also classifies accounts so definitely that errors in posting are very rare. A skilled bookkeeper would not be likely to post an income account in any account beginning with "6" for instance.

The above detailed classification is not intended to be complete but is merely suggestive of the method of classification and of its possibilities. It will be noted in the "6" group for example, that accounts 611, 621, 631, etc., indicate both functional and objective classification, the first two digits giving the functional group and the third digit "1," the objective, viz., payroll or salary.

If this system is used by a large corporation or holding company which operates branches or factories in different sections of the country, all forming part of the general system, letters of the alphabet may be allotted to each factory or branch in addition to the numerical classification. By this means the accounts of each branch may be kept separate on the books of the head office, but the corresponding expense accounts will have the same numbers and may be incorporated in the head office books or balance sheet without any difficulty. This illustrates the principle of grouping all accounts belonging to the same classification and separating all accounts which belong to different units of the same organization.

In establishing a special system of classification for any purpose whatever, the main points to be kept in mind are that the following requirements shall be fully met:

1. To enumerate all the kinds of information which may be classified.
2. To group these items into a limited number of classes.
3. To give each class a definite and unchanging symbol.
4. To provide for expansion of the classification under each group, and symbolize each subdivision by an addition to the symbol for the group.

If these general rules are observed, the notation may be numerical or alphabetical, whichever serves the purposes noted above, and also is most easily memorized without the use of an elaborate key to interpret the system.

Reports.—The second function of accounting is that of report-making. It is chiefly by means of reports that the various executives are kept informed of the activities under their charge. It is on the information in these reports that executives formulate their policies and evaluate the results secured therefrom. These reports, the data of which come from the accounts, directly or by analysis, may be classified under several heads, such as:

1. Accounting reports.
2. Accounting-Statistical reports.
3. Charts or Graphical reports.

The accounting reports are best exemplified by the balance sheet and statement of profit and loss together with their various supporting schedules. Accounting-statistical reports comprise all sorts of tabulations and statements the material for which is furnished by various groups of accounts. These do not follow any prescribed form. The manner of set-up should be flexible, being adapted to the needs and peculiarities of the executive for whom drafted. Various kinds of accounting-statistical reports frequently made use of are indicated on pages 586 and 587. This is merely a suggestive list. Charts comprise pictures of statistical reports which lend themselves to graphical presentation.

An illustration of a type of daily report through which the general manager endeavors to keep himself in touch with the various major factors necessary for the proper management of the business is given in Form 62.[1]

Value of Business Statistics.—Because of the complexity of modern business, it is practically impossible for the management or an executive of a large organization to rely on personal observations and impressions when formulating plans and policies. To do so would lead to frequent errors and costly mistakes of judgment. The human mind cannot adequately grasp the significance of a multitude of facts in the variety of their occurrence. In consequence, many problems of management are today being solved by the intelligent use of statistical records or tabulations of past and present operations. By this means the pertinent facts regarding a business are classified and summarized, and the analysis of complicated figures and large aggregates is made possible. The relation of the groups to each other and of each group to the past, the relation of the unit to the whole, and so on, are best shown by the tabulation of facts in the form of figures. By reducing the facts to figures comparisons can easily be made and the proportion of one thing to another is more accurately presented. By divesting facts from their aspect in daily life and the caprices of temperament, a truer estimate of tendencies can be made. Because statistics generally deal with large masses or great numbers, standards, ratios, and types can easily be established.

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[1] Through the courtesy of F. W. Woodbridge, from "Elements of Accounting," The Ronald Press Co., 1925, p. 228.

DAILY REPORT TO JOSEPH WOODS DATE JAN. 10, 19...

	Previous Balance	Deposits	With-drawals	Today's Balance	TOTALS	Last Yr's Bal.	
CASH.........	2,360.79	1,537.11	2,797.40	1,100.50	1,100.50	789.50	
RECEIVABLES:	Previous Balance	Entered	Paid	Today's Balance		Last Yr's Bal.	Increase % Decrease
Trade Debtors	21,963.40	1,241.10	939.80	22,264.70		20,490.00	+ 8.6%
Acct. Rec......	900.00		100.00	800.00		200.00	+ 300.%
Notes (Trade)	1,250.00		750.00	500.00		750.00	− 33.3%
Totals.....	24,113.40	1,241.10	1,789 80		23,564.70	21,440.00	
	Previous Balance	Net Purchases	Cost Mdse. Sold	Today's Balance		Last Yr's Bal.	Increase % Decrease
MERCHANDISE..	120,460.10	61.50	1,251.52	119,270.08	119,270.08	104,863.50	+ 13.7%
	Previous Balance	Amount Purch.	Amount Sold	Today's Balance		Last Yr's Bal.	Increase % Decrease
NEGOTIABLE SECURITIES.....	800.00	200.00		1,000.00	1,000.00	700.00	+ 42%
TOTAL LIQUID ASSETS........................					144,935.28		+ 13.4%
PAYABLES:	Previous Balance	Entered	Paid	Today's Balance		Last Yr's Bal.	Increase % Decrease
Trade Creditors.......	13,562.30	61.50	1,829.90	11,793.90		10,792.30	+ 9.2%
Notes (Trade)	40,500.00	1,000.00	500.00	41,000.00		47,700.00	− 14.1%
Notes (Others)	500.00		500.00				
Totals.....	54,562.30	1,061.50	2,829.90	52,793.90	52,793.90	58,492.30	− 9.4%
WORKING CAPITAL................................					91,961.38		
	Amt. From 1st Per.	Today's Sales	Cost Mdse. Sold to Date	Gross Profits		Last Yr's Gr. Pr. to Dt..	Increase % Decrease
SALES.	15,511.20	1,563.90	13,660.08	3,415.02		3,240.00	+ 5.4%
	No. From 1st Per.	Number Today		Total		Last Yr's T. to Date	Increase % Decrease
NUMBER SALES TRANSACTIONS	1,147	138		1,285		1,153	+ 11.4%
	Amt. Since 1st Per.	Today's Returns		Total		Last Yr's R. to Date	Increase % Decrease
SALES RETURNS	43.20	8.60		51.80		49.70	+ 4.23
	Amt. Since 1st Per.	Today's Returns		Total		Last Yr's R. to Date	Increase % Decrease
PURCHASE RETURNS.......	136.70	5.10		141.80		140.10	+ 1.27
	Previous Balance	Entered	Old Acct. Paid	Today's Balance		Last Yr's Balance	Increase % Decrease
BAD DEBTS....	126.10	10.00		136.10		123.70	+ 1.17
	Previous Balance	Entered Today	BackOrds. Filled	Today's Balance		Last Yr's Balance	Increase % Decrease
UNFILLED SALES ORDERS.....	400.00	90.00		490.00		320.00	+ 53.1%
	Previous Balance	Purch. Ords. Issued	Invoices Entered	Today's Balance		Last Yr's Balance	Increase % Decrease
UNFILLED PURCHASE ORDERS	1,400.00	2,600.00	61.50	3,938.50		1,600.00	+ 246.1%

Form 62. Manager's Daily Report

The mortality statistics of insurance companies afford a good example of general averages or ratios that hold true when applied to such an uncertain proposition as the length of human life. Business statistics, however, cannot attain this accuracy because facts of a similar kind are not of such frequent occurrence and consequently the average is not so reliable. But the manager who is acquainted with the limitations of the statistical method and who intelligently understands the business forces with which he is dealing, finds it sufficiently accurate in the great majority of instances. The frequent and almost universal use of the sampling method of testing mailing lists, the use of figures as to the density of population in selling campaigns, and the increasing use of time studies in factories, show that statistics can be made to serve as a valuable guide in arriving at important decisions.

In the construction of statistical tables, the following rules[2] or principles should be adhered to:

1. The title should constitute a clear, concise, and complete description of the material assembled in the table.
2. Headings of columns and rows should be concise and unambiguous.
3. Variable quantities should increase from left to right and from top to bottom, when such arrangement is feasible.
4. Columns and rows may be numbered to facilitate reference to the table.
5. The units of measurement employed should be clearly indicated.
6. Sources should be given in all cases.
7. The table should constitute a unit, self-sufficient and self-explanatory. All explanations necessary for its interpretation should be included as integral parts of the table, or in the form of footnotes.

Railroad Statistics.—Railroad companies have for a long time used statistics to aid them in interpreting the mass of detail involved in operating over a large area. The figures are generally grouped into two classes: (1) those showing results of operations, such as annual reports; and (2) tabulations of operating details.

[2] F. C. Mills, Statistical Methods, Henry Holt & Co., 1924, p. 73.

The latter are devised mainly for the purpose of checking and control. Another classification, more minute, is the grouping of railroad statistics according to their nature into:

1. Statistics pertaining to maintenance of roadbed, track, buildings, signals, etc.
2. Cost of maintaining locomotives, cars, and rolling stock in general in good condition.
3. Expenses connected with the movement of trains.
4. Expenses in connection with the securing of new business.
5. Administrative expenses.

The compilation of figures showing receipts per passenger, average journey per passenger, average haul of merchandise, receipts per ton of freight, relation of cars run to business done, proportion of loaded and empty car space, cross hauling of empty cars, percentage of empty to loaded cars, compilations showing cost per passenger mile or ton mile—these are all valuable and pertinent facts about railroad operation. The most significant way of stating some facts is by means of figures. This is especially true of such important and related phases of operation as, for example, the ratio of the payroll to operating revenue, a comparison of the payroll of engine men and trainmen with the engine and train mile, or a comparison of the business done with the payroll at each station.

Manufacturing Statistics.—Statistics are being increasingly utilized for recording facts in connection with production, especially in factories where a system of cost-keeping is in vogue. Various forms and cards are frequently used to collect the required data which are then grouped or classified in various ways. The performance of each workman is recorded and the various records are combined into groups and compared. Statistics as to output, orders on hand and in process, figures showing idle time, capacity of machines and actual use, are examples.

Mercantile Statistics.—The use of statistics in mercantile establishments is perhaps even more prevalent than in factories. This is chiefly because factories handle comparatively few lines, whereas mercantile houses generally carry or deal in a large num-

ber. The figures compiled are generally concerned with one or more of the following:

1. Sales. The comparison here is by totals, departments, cash and charge sales, salesmen, territories, lines, percentages to total, new business, etc.

2. Profits. The same classification is applied as for sales. Generally discounts and profits are compared.

3. Inventory of stock. Comparison made by cost or selling price, purchases, quantities sold, used, balance, percentages of sales, departments, lines, etc.

4. Cost of conducting the business. Comparison made by classes of expense, departments, percentage of sales, etc.

5. Collections. Comparison made by percentage of sales, territory, etc.

6. Notes, etc., due. Comparisons made with sales, territories, lines.

7. Goods returned. Comparisons made with lines, territories, percentage of sales.

8. Efficiency of employees. Tabulations made showing profits, percentage on standard of work performed, comparisons between departments.

9. Advertising. Compilations by departments, mediums, results, etc.

10. Turnover. Compilations showing total business and rate of turnover, compared by departments, lines, number of sales, etc.

11. Cash. Statistics giving receipts and disbursements in convenient groups.

12. Mark-ups and mark-downs. Statistics by departments, percentages, etc.

13. Summaries of operation. These are generally compiled periodically but are carried on continuously as long as is desirable.

14. Production. Statistics showing amount, completed work, work in process, orders on hand, time lost, total costs, unit cost, labor cost, material cost, overhead. All are classified into groups or further subdivided for comparison.

Each individual manager selects the particular set of facts which he thinks will best show the trend of the business. The

complexity of the business usually determines the number of reports.

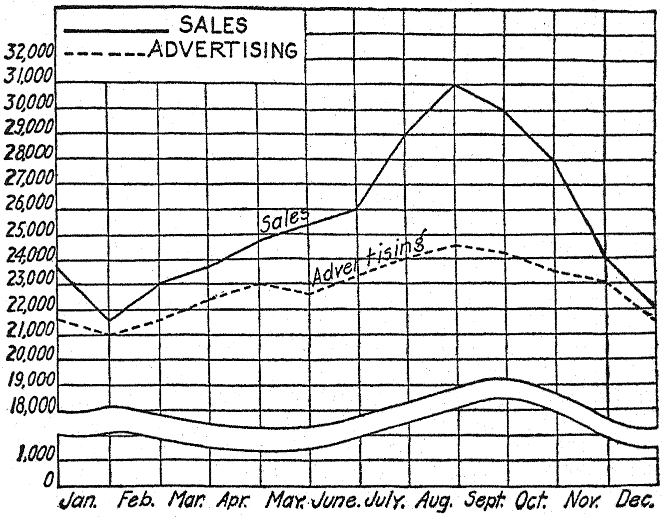
Use of Graphs in the Presentation of Statistics.—Long experience or special aptitude may qualify a man to grasp readily the full significance of statistical compilations in a variety of forms without the use of charts or graphs. The quicker and surer method, however, in driving home the essential points of statistics is their graphic presentation. For the majority of business men, the graphic method will accomplish what statistical tabulation fails to do. While facts are of prime importance, their method of presentation affects their usefulness and is therefore of greater importance. The great mass of figures that accountants and efficiency men only too often present in incomparable form, sometimes far in excess of requirements, is best classified by means of charts.

Advantages of the Use of Graphs.—The arguments in favor of the use of charts are that the importance of written words or figures is apt to be judged from the amount of space used, or the time spent in writing or compiling them; whereas the graphic method shows the vital facts in a way which compels attention. The statistics are easily compared and when figures are visualized in graphic form relations are seen at once. One week is readily compared with another, one year with the previous year, one man's performance with another's, and so on.

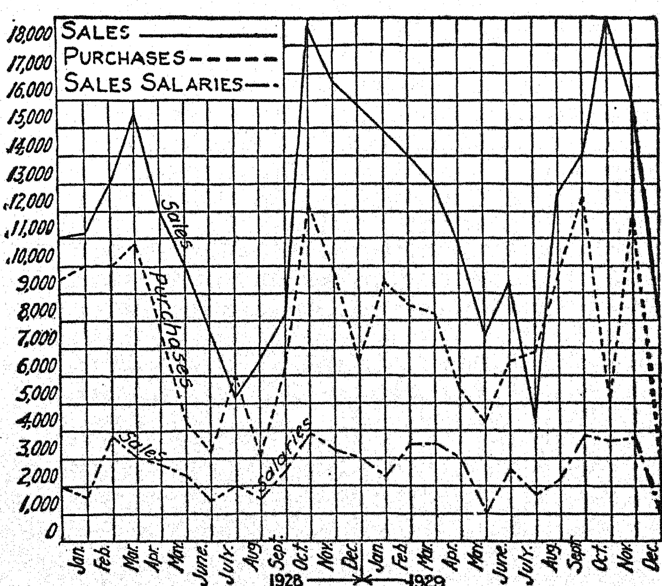
Graphic methods are not only in many cases better but also cheaper. This is especially true if a number of copies have to be made. It requires more work to copy a mass of figures than to draw a few lines or figures by means of blue-print tracings. If many copies are needed, the photographic method of reproduction may be used. Then again, in statistical tabulations it is necessary to rearrange the figures in various orders so as to make different tabulations comparable.

Principles of Graph Construction.—The following principles should be observed in making graphs:

1. Graphs should be simple so that the full significance is readily seen. If a chart requires a great deal of study, its very



Form 63. Chart Showing Comparison of Sales and Cost of Advertising



Form 64. Chart Showing Comparison of Sales, Purchases, and Sales Salaries

purpose is defeated. As a general rule, only two lines should be used. This is especially true if the lines are apt to intersect one or more times. If there are a number of interrelated figures to be presented, it is better to make separate charts on one sheet or to place them together in some other way.

2. Most statistics can be presented by one or more curves where the quantity is expressed by the distance of the horizontal movement of the curve.

3. The vertical scale for a curve should be so selected that the zero line will appear on the diagram. This may require a break in the graph, as shown on page 589, Form 63.

4. When the scale represents percentages, the 100% line should be emphasized in some distinctive way.

5. The curves should be sharply distinguished from the ruling of the paper.

6. The lettering and the figures should be so placed as to be read as easily from the base as the bottom, or from the right-hand edge of the diagram as the bottom.

7. The titles should be clear and complete and, if necessary, subtitles and descriptions should be used.

The illustrations in Forms 63 and 64 show how data lend themselves to graphic presentation.

The type of chart to be used for various purposes is somewhat a matter of judgment, although some types are better adapted to certain kinds of data than others. Thus, the bar chart, the pie or circle chart, the line graph, the ratio chart, etc., all have characteristic uses. The student is referred to any standard text on statistics or graphics for an explanation of this matter.

Factors of Executive Control.—The two chief instruments of control were given above as accounting and statistics, the one concerning itself mainly with internal data and the other mainly with external data. It is not purposed in this brief discussion of business control to treat of the statistical means of control. For this the reader is referred to any standard text on business statistics. In this chapter consideration has been given to the use of various kinds of reports as a means of bringing the factual data before the executives charged with control and also to the

development of a classification of accounts to furnish the information from which the reports are built up. Reports and accounting classification must be very closely coordinated if there is to be an easy flow of reliable data to the executives. It remains now to interpret these data so that the proper executive action will result. Chapter 40 treats briefly of this.

CHAPTER 40

ANALYSIS AND INTERPRETATION OF REPORTS

Interpretative Accounting.—A satisfactory chart of accounts having been developed, a correct record of business transactions having been made, and a system of reports having been adopted for the purpose of presenting the essential information to the various executives, there remains a final task to the accounting department—that of interpreting the data in the report. For this purpose an analysis of the data is frequently necessary in order to evaluate their significance. Then comes the final act—that of interpretation. The analytic process is for the purpose of placing the data in their true relationship to other data so that a basis will be given for the expression of an opinion as to their true meaning. The expression of such an opinion comprises the interpretative process or act. The interpretation in turn is the basis on which rests the adoption of such plans or the formulation of such policies as may seem necessary. The making of plans and policies is very manifestly an executive function. The responsibility for getting results within each department places on the executive the duty of developing a means therefor. There is, however, some difference of opinion as to whether the interpretative function is an accounting or an executive function. The evaluation of the data, the interpretation to be placed on them, is ultimately a responsibility belonging to the executive. The preparation and analysis of the data are primarily accounting functions. It very frequently becomes necessary for an accounting officer to interpret also. This is so because many executives are unable to read reports intelligently, whereas the accounting officer who knows what has gone into the reports can better appraise and evaluate them. On the other hand, he lacks the intimate and specialized knowledge of a particular department in the light of which the report should be interpreted. Probably the truth of the situation is best stated by saying that ultimate respon-

sibility for interpretation rests with the departmental executive who must use the data, but that the accounting officer can and must have an appreciation of the significance of the data and should be ready to give an advisory opinion at any time.

Reports to be Interpreted Here.—The treatment of analysis and interpretation to be given here will confine itself to the strictly accounting reports, i. e., the balance sheet and profit and loss statement. The other types of reports, viz., the accounting-statistical and graphic, are themselves in the nature of analyses of significant data. This is particularly true of graphic reports, the purpose of the graphic method being to show figure data in such a way that their true significance is most strikingly set forth. The accounting-statistical reports, for the most part, use the data furnished by the accounting records, i. e., the internal data of the business as distinguished from those external data, the compilation and summarization of which comprise the field of professional statistics. In the interpretation of these departmental reports—as compared with the financial and operating statements which are more general, applying to the business as a whole—a more intimate and highly specialized knowledge of the work of each department is needed, such as is usually possessed only by departmental executives.

Function of Financial and Operating Statements.—The balance sheet is intended to show financial condition and the statement of profit and loss, operating condition. What is meant by these two terms will now be explained. The financial condition of a business has reference to its ability to finance its various activities. Conducting a business involves providing a home for it—secured by owning or leasing—a stock of merchandise to deal in, and a staff of employees to carry on the activities. All of this involves obligations. The business home, if owned, must be maintained and protected from fire and other hazards; if rented, the obligation to pay the rent must be assumed. The merchandise bought must be paid for and the staff of employees not only must be recompensed for their services but must be provided with whatever supplies and accessories are needed in the performance of their duties. To meet these obligations requires ready funds

of cash. Unless these obligations are met, dissatisfaction on the part of the aggrieved parties is sure to exist. This may ultimately lead to the bankruptcy court where the business may be taken away from its owners and placed in the hands of an agent of the court who will hold it for the benefit of the creditors. Thus the financial condition of a business refers primarily to its ability to pay its debts as they come due, i. e., to its solvency.

A second implication of the term "financial condition" has reference to the fundamental solidity or stability of the business. A business such as a bank, stock brokerage concern, or even a mercantile concern which leases its business home, is ordinarily not nearly so solid as an industrial business, a large transportation or other public utility company which has the largest part of its capital invested in a plant. The first type of business has largely current assets which, because of their relatively high degree of liquidity, may be dissipated or unlawfully secreted much more easily. While this type may or may not be more solvent than the second, there is not the same basic solidity; the fixed investment of the second type cannot take to flight and disappear. Even though it may not be able at a given time to pay its debts promptly, creditors know that there are basic values which, if other resources fail, can ultimately be made available for satisfaction of their claims.

The operating condition of business refers to its net profit results, the degree of progress which it has made during the fiscal period, as evidenced by its statement of profit and loss. While a good balance sheet is always so drawn as to show the net profit for the period, it gives none of the data by means of which the reader can determine the volume of business done and the various classes of costs incurred to secure that business. It is the primary function of the profit and loss statement to give this type of information. Without it, one is unable to judge whether the net results secured are commensurate with the effort put forth.

The balance sheet thus shows financial condition and the statement of profit and loss indicates the results from operations. The one shows position at a particular time, the other shows progress during a given period. Briefly stated, to show position and to

show progress are respective functions of the two basic accounting reports.

Units of Measure in Accounting.—In all phases of life it is very necessary to have commonly accepted units for the measurement of activities of various kinds. In economics and the fields of science, this is particularly true. In business the dollar is used as the unit of value and various tables of measures have been devised for quantitative measurements of all kinds. Business makes use of both quantity and value measures. Total value, usually being determined by the application of unit value to the number of units, does not in itself give an accurate quantitative measure of activities, because of the variable, unit price. Thus, this year's sales may be more than last year's and, at the same time, the quantitative measure may be less—a lesser number of units being sold at a higher price per unit. While accounting deals primarily with values, values must at times be analyzed in quantitative terms to secure their true significance.

Accounting, i. e., interpretative accounting, also uses ratios for measuring results. Thus, the ratio between net profits and capital investment is one measure of the results of operation. It is not—except indirectly—a measure of the *amount* of profits but rather of the *profitability* of the business. However, for determining the efficiency of business effort, standards expressed in terms of the various units of measurement must be adopted.

Standards of Business Activities.—A standard is a norm with which a comparison of actual accomplishment indicates the degree of attainment. This comparison between planned and actual performance serves as a measure of efficiency. Standards are, of course, expressed in the units of measurement, and may be in terms of values, quantities, and ratios. Standards come from two chief sources: (1) external and (2) internal. Many trade associations now secure from their members data covering costs and other measurements of the results of their business activities. Averages of these—sometimes classified by geographical or size groups—may be used as performance standards. In many lines of business such standards are not available or, if so, they are not considered suitable for the particular business, especially when its

accomplishments have usually been better than the average. In such cases, performance standards have to be developed from the concern's own records and will reflect its past accomplishments adjusted to conditions currently prevailing. It is here that the exercise of executive judgments of the highest order is necessary. A comparison of the data for the past several years may show well-defined trends which will probably extend into the next year or farther. General economic conditions may accentuate or retard such trends. When all pertinent factors have been considered and weighed, standards of performance may be set, in terms of departments and responsibilities, so that the data collected by the accounting system—which, we have seen, should also be developed to gather its information in the same terms—may be compared with them. The formal business budget as used today in many concerns constitutes a series of standards or goals to be aimed at. However arrived at—whether by scientific statistical methods or by an informal weighing of the factors involved—such standards are a prerequisite to any determination of the degree of success reflected in the results of business operation for the current period. Without standards the rendering of executive judgments is impossible.

Comparison, a Method of Interpretation.—Determination of the similarities and differences between two objects or ideas is a fundamental method used in all mental processes. This is the method of comparison and, as indicated above, it is a method absolutely essential in the rendering of judgments as to performance results. Not only are comparisons with standards necessary but comparisons of the financial and operating data of one period with those of another serve a useful purpose. This is the method used to indicate trends. What has actually been accomplished, as distinguished from plans made, must always form the basis for performance trends. Thus, comparisons between similar data for a number of years will show the trend of the activities reflected therein. A comparison of sales by years, of plant values, of operating expenses, of outstanding accounts receivable, etc., will show the trends of these different activities. These comparisons are made by means of the comparative balance sheet and com-

parative profit and loss statements which are explained and illustrated on pages 605–611.

Comparison of related data, as distinguished from similar data, is also very useful for some purposes. Thus, a comparison of total assets with total liabilities, showing the portion of the assets furnished by borrowed capital is significant. As seen in Chapter 36, the comparison between sales and outstanding accounts receivable is significant in judging the trend or efficiency of the collections policy.

The chief function of the executive is the making of decisions, the rendering of judgments. It is here that the processes of analysis and synthesis come into play. The analysis of situations and of data to see their interrelations, an appreciation of the significance of results of analysis, and a constructive use of such results by the method of synthesis—these are the main steps in arriving at decisions. These mental steps cannot be taken mechanically—by rule of thumb—but the data used as a guide must be weighed and evaluated by a mind enriched and stabilized by a wealth of experience. It is particularly in the evaluation of the effect on the business of external conditions, over which no individual control can be exercised, that the factor of experience is so valuable.

Preparatory Analysis for Interpretation.—Analysis is, in the main, of two types: (1) that made of data known to be interrelated, and (2) that made of data to see if there is interrelation. The purpose of the first type is to measure the *degree* or amount of the relationship; that of the second type is exploratory to see if any significance, unknown before, attaches to the data. Analysis of internal data is largely of the first type, whereas that of external data is often of the exploratory type. Only that of the first type will be treated here. Before attempting the interpretation of data, certain preparatory analyses are found useful. Some of the more important of these will be pointed out. As indicated above, these will be limited to data taken from the balance sheet and the profit and loss statement.

Balance Sheet Percentages.—In preparing balance sheet data for interpretation, a correct grouping or classification is the

first step. The reader is already familiar with the purpose of such classification, explained in Chapter 3. A further analysis of these classified data by means of percentages is often desirable. For this purpose, the total assets are usually taken as the 100% base and the groups and items are related to this base. A condensed balance sheet with percentage analysis is shown in Form 65.

Percentages constitute a form of comparison. In the balance sheet on page 599, the individual items and groups of items are compared with the total items. Sometimes a comparison of the items of a group with the total for the group is desirable. Such an analysis of the current asset group follows.

		%
Cash	$ 50,000.00	14.92
Notes Receivable	15,000.00	4.48
Accounts Receivable	135,000.00	40.30
Merchandise	125,000.00	37.32
Other Current Assets...........	10,000.00	2.98
Total Current Assets.......	$335,000.00	100.00

The base to be used in percentage analysis depends largely on the standards available for comparison. Greater significance attaches to the relation between merchandise, for example, and total current assets than that between merchandise and total assets. Both ratios give interesting information, however.

As to the form of these percentage statements, it should be noted that valuation reserves are omitted, the related assets being shown net. This is usually satisfactory. So far as the reserve is concerned, its relation to its own asset is the significant ratio and this can best be computed separately.

Balance Sheet Ratios.—The comparison of related items or groups of items within the balance sheet often gives valuable information which may sometimes be used as a measure of a business activity or condition. Thus, the ratio between current assets and current liabilities, known as the current ratio, is an index of the ability of a business to pay its debts. The ratio between the working capital and the current assets is another aspect of the same condition in that it shows the portion of the

THE ALVIN B. CASSIDY MANUFACTURING CO.

BALANCE SHEET, December 31, 19—

Assets		%	*Liabilities and Capital*		%
Cash	$ 50,000.00	8.33	Notes Payable	$ 54,000.00	9.00
Notes Receivable	15,000.00	2.50	Accounts Payable	84,000.00	14.00
Accounts Receivable	135,000.00	22.50	Other Current Liabilities	12,000.00	2.00
Merchandise	125,000.00	20.83	Total Current Liabilities	$150,000.00	25.00
Other Current Assets	10,000.00	1.67	Bonds Payable	$100,000.00	16.67
Total Current Assets	$335,000.00	55.83	Total Liabilities	$250,000.00	41.67
Land	$ 15,000.00	2.50	Capital Stock	$250,000.00	41.67
Buildings and Equipment	195,000.00	32.50	Surplus	100,000.00	16.66
Goodwill	50,000.00	8.33	Total Net Worth	$350,000.00	58.33
Other Assets	5,000.00	.84			
Total Non-Current Assets	$265,000.00	44.17			
Total Assets	$600,000.00	100.00	Total Liabilities and Net Worth	$600,000.00	100.00

Form 65. Condensed Balance Sheet Showing Percentages

current assets furnished by the proprietor's own capital. Merchandise being the least liquid of the current assets, its ratio to total current assets is some indication of the *character* of the liquidity of this group. Cash and the receivables being the most liquid, the ratio of their sum to the total current liabilities is a good test of solvency. This is known as the "acid" test. Current assets to total assets shows the division of the assets as between current and fixed. Working capital to total capital or net worth shows the manner of employment of capital as between its current and fixed forms. The ratio between total liabilities and total assets indicates the creditors' "stake" in the business as compared with that of the owners. The ratio of fixed liabilities to plant and equipment gives the margin of safety for that class of creditor. Thus, if a mortgage is 40% of the value of the mortgaged property, the margin of safety is 60%. The ratio of surplus to net worth shows the portion of the owners' capital subject to their withdrawal in the form of dividends. Other ratios and their significance will occur to the interested reader. A tabulation of the above ratios follows:

1. Current assets ÷ Current liabilities.
2. Working capital ÷ Current assets.
3. Merchandise ÷ Current assets.
4. (Cash + Receivables) ÷ Current liabilities.
5. Current assets ÷ Total assets.
6. Working capital ÷ Total capital.
7. Total liabilities ÷ Total assets.
8. Fixed liabilities ÷ Plant and equipment.
9. Surplus ÷ Net worth.

Profit and Loss Percentages and Ratios.—The profit and loss statement is capable of analysis in much the same way as the balance sheet. In it the amount of the net sales is usually taken as the 100% base and all other items and groups of items are expressed as percentages of that base. A condensed profit and loss statement, so analyzed, is shown in Form 66 opposite.

In the detailed profit and loss statement, each of the items is given a percentage standing. This may also be done in the various schedules supporting the condensed statement. In addition to this, an analysis of each schedule may be made, using the total of the schedule as the 100% base. For example, the Selling Expenses schedule so analyzed would be shown as follows:

	Amount	% of Selling Expense	% of Net Sales
Salesmen's Salaries and Commissions	$ 50,000.00	40.00	6.67
Salesmen's Traveling Expenses	12,500.00	10.00	1.67
Advertising	37,500.00	30.00	5.00
Delivery Expenses	18,750.00	15.00	2.50
Sundry Sales Expenses	6,250.00	5.00	.83
Total	$125,000.00	100.00	16.67

The percentage column of the profit and loss statement is frequently called the "Sales Dollar" column. In that column the net sales may be considered as the average or typical $1.00 sale. The way in which that dollar is used, is shown by the percentages of the various costs. Thus, 60 cents of every sales $1.00 go for the cost of the goods sold, leaving 40 cents as gross profit; 16⅔ cents go to pay the costs of selling, 8⅓ cents for general administrative costs, etc., leaving finally 15⅓ cents of every sales $1.00

THE ALVIN B. CASSIDY MANUFACTURING CO.
STATEMENT OF PROFIT AND LOSS
For the Year Ended December 31, 19—

			%
Sales	$760,000.00		101.33
Less: Sales Returns and Allowances	10,000.00		1.33
Net Sales		$750,000.00	100.00
Cost of Goods Sold		450,000.00	60.00
Gross Profit		$300,000.00	40.00
Selling Expenses	$125,000.00		16.67
General Administrative Expenses	62,500.00		8.33
Financial Management Expenses	12,500.00		1.67
Total Operating Expenses	$200,000.00		26.67
Financial Management Income	15,000.00		2.00
Net Operating Expenses		185,000.00	24.67
Net Profit for the year		$115,000.00	15.33

Form 66. Condensed Profit and Loss Statement Showing Percentages

as the net profit. So expressed, the percentage column takes on added significance.

Other profit and loss ratios may be developed, such as the ratios between groups, for example, but these are not considered especially significant although they may be interesting.

Inter-Ratios and Turnovers.—Of even greater significance are certain interrelations between the two basic statements. Comparisons between related data in the balance sheet and in the profit and loss statement determine these ratios. The more important of these ratios are the following:

1. Cost of goods sold ÷ Average inventory.
2. Net sales ÷ Average working capital.
3. Net sales ÷ Average net worth.
4. Net sales ÷ Receivables.
5. Net profit ÷ Average net worth.
6. Net profit ÷ Capital stock.
7. (Net profit − Preferred dividends) ÷ Common capital stock.

The first of the above ratios is the merchandise turnover ratio. It represents the number of times the average capital invested in merchandise has been "turned over"—i. e., the stock sold out and the money reinvested—during the period. Every time a dollar of capital invested in merchandise is sold, there is opportunity for a profit. If one such dollar can be turned over, say, six times during the year, there are six profit margins. Therefore, the faster the rate of turnover, the greater the profit possibilities. In computing the ratio, an average of the opening and closing inventories is used as the best index of the average amount of capital invested in merchandise during the period. Where monthly inventories are available, the average of the thirteen such inventories is a better index.

The average working capital employed during the year, divided into the results secured by it, shows the number of times it reproduced itself in sales. This is termed the working capital turnover and is an index of the degree of employment of capital, the higher the rate, the greater the degree of employment. The average of the initial and final working capitals is used as the divisor.

Similarly, the third ratio shows the rate of turnover of total average owners' capital employed in the business. The significance of the fourth ratio has been explained in Chapter 36. When considered in connection with the credit term, it is an index of collection effort. The fifth ratio is the rate of earning as based on the average owners' capital employed. The relation between the work accomplished by this capital as reflected by the net sales and the profit earned—figured as the percentage of net profits to net sales, as shown on page 601—is also a significant measure of earning ability. Ratios 6 and 7 may also be used for this purpose. Where there is but one class of stock, the sixth ratio measures the percentage of earning if the dollar value of the stock is used as the divisor; but if the number of outstanding shares is used, the ratio shows the number of dollars earned per share. Where more than one class of capital stock is outstanding, if from the net profits is subtracted the amount of that profit needed to pay the preferred dividends and the remainder is divided by the number of common shares outstanding, the quotient or ratio is the number of dollars of earnings on each such share. This is taken as an important index of the earning power of a business.

Other inter-ratios with varying degrees of significance may be developed.

Comparisons with Standards.—The chief function of the various kinds of analysis explained above is the development of measures of accomplishment and the marshaling of data so as to show their significance. In order to use such measures intelligently, the executive must have performance standards for each of the activities measured. Comparison of the measure with the standard indicates the degree to which the actual accomplishment approaches the planned or standard. Such a comparison is, therefore, an index of efficiency. Of course, the main value in securing an index of efficiency lies in the use to which it is put. Investigation to determine the causes of variations between actual and standard, and, those causes having been found, the making of plans to correct the failures—these are the real advantages accruing from the development and use of indexes of efficiency. Analysis and interpretation are the steps preliminary to the formulation of corrective plans and policies.

In this brief chapter mention can be made of only a few of the more obvious kinds of standards employed in various business activities. Standards of buying are expressed in terms of percentages, ratios, and other comparisons. The particular standard set differs for different kinds of business and within the same business frequently differs from period to period.

Among the types of standards for *buying* may be mentioned the following:

1. Standard ratio for cost of goods sold to net sales.
2. Standard ratio for average inventory to total current assets.
3. Standard rate for merchandise turnover.

In *manufacturing* the following types of standards are often used:

1. Standard percentage for raw materials used to total cost of manufacturing.
2. Standard percentage for direct labor used to total cost of manufacturing.
3. Standard percentage for factory overhead used to total cost of manufacture.
4. Standard cost per unit of product.

Standards for *controlling the sales activities* include:

1. Volume of expected sales expressed in terms of value and of quantities.
2. Standard rate for merchandise turnover.
3. Standard ratio for each selling expense item to net sales.
4. Standard ratio for each selling expense item to total selling expenses.

Standards for use in connection with the *financial activities* include:

1. Standard ratio of expense of treasurer's office to net sales.
2. Standard ratio of credit and collection expense to net sales.
3. Standard ratio of net sales to receivables.
4. Standard ratio of bad debts to net sales.

5. Standard for current ratio.
6. Standard rate for working capital turnover.
7. Standard rate for total liabilities to total assets.
8. Standard rate for fixed liabilities to plant and equipment.
9. Standard rate for percentage return on investment.
10. Standard rate for purchase discount to net purchases.

For use in developing indexes of *efficiency of general administration,* the following standards are used:

1. Standard earnings per share of common.
2. Standard ratio for net profits to capital stock.
3. Standard ratio for net profits to net sales.
4. Standard ratio for net profits to average net worth.
5. Standard ratio for surplus to net worth.

The above are some of the more obvious standards used in establishing general functional efficiency indexes. The same principle is used in judging the results of operations all along the line. It is capable of application to the most detailed activities of business.

In the absence of carefully developed standards—and also in addition to them—use is made of financial and operating data of previous years. These data are usually set up in a comparative form, explanation of which will now be given.

The Comparative Balance Sheet.—Because so few businesses issue for publication their statements of operation, the outsider is dependent almost entirely on the balance sheet for any information relative to the condition of the business. It is surprising how much information can be secured from this statement, particularly when a number of balance sheets for different years are available. The story of success or failure is usually written large over the years. Even for the use of executives within the business to whom the results of operation are available, a comparison of balance sheets is often very enlightening, particularly to indicate trends of financial data. The executive is often too close to his everyday transactions to see them in proper perspective. The comparative balance sheet gives him this perspective. A typical form of comparative balance sheet is shown in Form 67.

THE JACKSON AND EDWARDS CO.
COMPARATIVE BALANCE SHEET
June 30, 1930, and June 30, 1929

	1930	1929	Increase + Decrease −
Assets			
CURRENT ASSETS:			
Cash	$ 25,000.00	$ 20,000.00	+$ 5,000.00
Notes Receivable	15,000.00	16,000.00	− 1,000.00
Accounts Receivable	150,000.00	125,000.00	+ 25,000.00
Merchandise	100,000.00	110,000.00	− 10,000.00
Advertising Supplies	5,000.00	4,000.00	+ 1,000.00
Total Current Assets	295,000.00	275,000.00	+ 20,000.00
FIXED ASSETS:			
Land	50,000.00	30,000.00	+ 20,000.00
Plant and Equipment	250,000.00	225,000.00	+ 25,000.00
Total Fixed Assets	300,000.00	255,000.00	+ 45,000.00
OTHER ASSETS:			
Organization Expense	1,000.00	1,500.00	− 500.00
TOTAL ASSETS	$596,000.00	$531,500.00	+$64,500.00
Liabilities and Reserves			
CURRENT LIABILITIES:			
Notes Payable	50,000.00	75,000.00	− 25,000.00
Accounts Payable	40,000.00	50,000.00	− 10,000.00
Accrued Sales Salaries	5,000.00	3,000.00	+ 2,000.00
Total Current Liabilities	95,000.00	128,000.00	− 33,000.00
FIXED LIABILITIES:			
Bonds Payable	150,000.00	100,000.00	+ 50,000.00
Total Liabilities	245,000.00	228,000.00	+ 17,000.00
VALUATION RESERVES:			
Reserve for Doubtful Accounts	5,000.00	3,000.00	+ 2,000.00
Depreciation Reserve Plant and Equipment	40,000.00	30,000.00	+ 10,000.00
Total Reserves	45,000.00	33,000.00	+ 12,000.00
TOTAL LIABILITIES AND RESERVES	$290,000.00	$261,000.00	+$29,000.00
Net Worth			
Capital Stock	200,000.00	175,000.00	+ 25,000.00
Surplus	106,000.00	95,500.00	+ 10,500.00
TOTAL NET WORTH	$306,000.00	$270,500.00	+$35,500.00

Dividends paid amounted to: for 1929, $7,000; for 1930, $12,000.

Form 67. Comparative Balance Sheet

The following points with regard to the form of the statement should be noted:

1. Where two years are compared, three money columns are used, the third showing the changes or differences between the two years.
2. The current or most recent year is shown first.
3. Only one money column is used for each year, thus making for compactness and neatness.
4. Valuation reserves are shown listed with the liabilities in a group of their own. This makes for neatness and legibility.
5. Group or class totals—current assets, for example—are set off by rules, one above and one below.
6. Instead of giving full details as to surplus, it is shown net and a footnote carries the transactions affecting it during the year. Since, in the illustration, only dividends have affected surplus, the amount of net profit is easily determinable. The increase in surplus, before 1930 dividends were paid, is the amount of net profits. Surplus at the beginning of 1930 amounted to $95,500; at the end before 1930 dividends, it amounted to $118,000. Net profits were, therefore, $22,500. By adding the dividends of $12,000 to the increase of net surplus, $10,500, shown in the comparative statement, the same result is obtained.

Thus, from the comparative balance sheet, with an analysis of the Surplus account, the amount of the net profit for the year is obtainable. While it does not show the volume of business done nor the costs of operations, all of the measures and ratios obtainable from balance sheet data alone are here obtainable for the two years. In computing ratios, however, the valuation reserves should always be deducted from their related assets and the net amount used. Thus, the total of the current assets should be adjusted before computing the current ratio. A comparison of these ratios shows the trend and indicates the degree of success of the current year compared with the other year.

A further analysis of the comparative balance sheet will give other information which is often quite valuable. This concerns the sources from which the business secured its funds for oper-

ating the business during the period and the way it disposed of or employed those funds. Explanation of this will next be given.

Statement of Funds and Their Application.—The information from which the source and disposition of funds is made up comes from the "Increase-Decrease" column of the comparative balance sheet. The main sources of funds are the following, these being viewed from the standpoint of the effect on cash of the transactions out of which they arise:

1. The increase of liabilities. This indicates an increased use of borrowed funds, or, as in the case of merchandise purchases on credit, a saving of one's own cash which would otherwise have to be used.

2. The decrease of assets. Decrease of some assets may be reflected in the increase of other assets, frequently cash. Thus, decrease of merchandise through cash sales shows an increase of the fund of cash. Decrease in fixed assets through depreciation brings about indirectly an increase of cash. The payment of the operating expenses of the business decreases the assets. Those paid in cash, decrease the cash; those paid with other assets, decrease those assets. Depreciation and bad debts are examples of this latter type of expense. This use of other assets than cash, conserves the cash and so indirectly increases it. See the explanation under 4, net profits earned.

3. The direct investment of additional capital. This, in the case of a corporation, is usually shown as an increase of capital stock.

4. Net profits earned. The sale of merchandise for more than the sum of its cost and the operating expenses of the business usually gives an increase of assets by the amount of the net profit. The actual increase of cash or other asset may, however, be more than the amount of the net profit. The net profits represent the remainder after deducting from gross profits the operating expenses of the business. Gross profit is reflected by an increase of assets—almost always current. With these assets, only those operating expenses payable in cash are met. Depreciation and bad debts, not payable in cash, do not decrease the cash, although they are deductions from gross profit before arriving at the net

profit. Hence, the amount of the increase of cash, or other current assets, brought about by net profits is computed by adding to the net profits the amount of these non-cash expenses.

These funds, so obtained, may be employed or applied to various uses, among which may be listed the following:

1. The reduction of fixed debt. It manifestly takes cash for this purpose.
2. The increase of fixed assets.
3. The reduction of current liabilities. This also takes cash funds.
4. The increase of current assets. The increase of merchandise stocks, the extension of additional credits to customers, require additional funds.
5. Dividend and other disbursements to owners.

The decrease of current assets and increase of current liabilities as sources of funds and the reduction of current liabilities and

THE JACKSON AND EDWARDS CO.
STATEMENT OF FUNDS AND THEIR APPLICATION
For the Year Ended June 30, 1930

Sources				
Bonds Payable			$50,000.00	
Capital Stock			25,000.00	
Net Profits for the year		$22,500.00*		
Add: Non-cash expenses:				
Bad Debts	$ 2,000.00			
Depreciation	10,000.00			
Organization Expense	500.00	12,500.00	35,000.00	
TOTAL FUNDS AVAILABLE				$110,000.00
Application				
Increase in Fixed Assets			$45,000.00	
Increase in Working Capital:				
Increase in Current Assets		$20,000.00		
Decrease of Current Liabilities		33,000.00	53,000.00	
Dividends to Owners			12,000.00	
TOTAL FUNDS APPLIED				$110,000.00

* The explanation of this amount is given on page 607.

Form 68. Statement of Funds

the increase of current assets as applications of funds are usually best handled net, by means of computing simply the changes in working capital, the increase of working capital representing a net application of funds and its decrease a net source of funds.

The formal statement of funds in Form 68 is based on the comparative balance sheet shown on page 606.

It may sometimes happen that the results of operation may show a good net profit but no funds be available for paying a dividend. The statement of funds and their application will give an answer to the question as to what has become of the profits.

The Comparative Profit and Loss Statement.—The comparative statement of profit and loss serves much the same purpose for the comparison of operating data that the comparative balance sheet does for financial data. Comparing the current year's results with those of previous years always provides interesting and valuable ratios, which, interpreted in the light of all the conditions surrounding, furnish a basis for whatever corrective measures may be found necessary. A typical form of comparative profit and loss statement is shown in Form 69 opposite.

Some features of the form should be noted. Percentage columns are provided for each year. This makes comparison much easier and more intelligible. The Increase-Decrease column carries only amounts. Group totals are separated by rules above and below. In this way only one "amount" column is needed for each year.

Relation Between Profit and Loss and Financial Elements.—A type of analysis which develops a basic understanding of the effects of transactions on the three elements of the proprietorship equation, viz., assets, liabilities, and proprietorship, traces the relationship between the economic or profit and loss elements and the financial or balance sheet elements of a business. This analysis is made through the use of "cash" as a common denominator for all transactions.

The profit and loss statement has been explained as a summary of the temporary proprietorship records kept for the pur-

THE JACKSON AND EDWARDS CO.
COMPARATIVE PROFIT AND LOSS STATEMENT
For the Years Ended June 30, 1930, and June 30, 1929

	1930	%	1929	%	+ Increase − Decrease
SALES	$760,000.00		$708,500.00		+$51,500.00
Less: Returns and Allowances	10,000.00		8,500.00		+ 1,500.00
NET SALES	$750,000.00	100.00	$700,000.00	100.00	+$50,000.00
COST OF GOODS SOLD:					
Finished Goods on hand July 1	110,000.00	14.67	120,000.00	17.14	− 10,000.00
Cost of Goods Manufactured	490,000.00	65.33	450,000.00	64.28	+ 40,000.00
Less:	600,000.00	80.00	570,000.00	81.42	+ 30,000.00
Finished Goods on hand June 30	100,000.00	13.33	110,000.00	15.71	− 10,000.00
COST OF GOODS SOLD	$500,000.00	66.67	$460,000.00	65.71	+$40,000.00
GROSS PROFIT	$250,000.00	33.33	$240,000.00	34.28	+$10,000.00
SELLING EXPENSES:					
Sales Salaries	75,000.00	10.00	70,000.00	10.00	+ 5,000.00
Advertising	90,000.00	12.00	95,000.00	13.57	− 5,000.00
Sundry Selling Expense	10,000.00	1.33	9,000.00	1.29	+ 1,000.00
Total	$175,000.00	23.33	$174,000.00	24.86	+ $1,000.00
GENERAL ADMINISTRATIVE EXPENSES:					
Office Salaries	30,000.00	4.00	30,000.00	2.29	No Change
Office Supplies	5,000.00	.66	4,000.00	.57	+ 1,000.00
Insurance	2,000.00	.27	2,000.00	.29	No Change
Taxes	3,000.00	.40	2,500.00	.35	+ 500.00
Sundry Office Expenses	2,000.00	.27	1,500.00	.21	+ 500.00
Total	$42,000.00	5.60	$40,000.00	5.71	+ $2,000.00
FINANCIAL MANAGEMENT EXPENSES:					
Interest Cost	7,500.00	1.00	6,000.00	.86	+ 1,500.00
Sales Discount	5,000.00	.67	5,500.00	.78	− 500.00
Bad Debts	3,750.00	.50	3,500.00	.50	+ 250.00
Total	16,250.00	2.17	15,000.00	2.14	+ 1,250.00
TOTAL OPERATING EXPENSES	$233,250.00	31.10	$229,000.00	32.71	+ $4,250.00
FINANCIAL MANAGEMENT INCOME:					
Purchase Discount	5,500.00	.74	3,000.00	.43	+ 2,500.00
Interest Income	250.00	.03	150.00	.02	+ 100.00
Total	5,750.00	.77	3,150.00	.45	+ 2,600.00
NET OPERATING EXPENSE	$227,500.00	30.33	$225,850.00	32.26	+ $1,650.00
NET PROFIT FOR THE YEAR	$22,500.00	3.00	$14,150.00	2.02	+ $8,350.00

Form 69. Comparative Profit and Loss Statement

pose of registering the changes in net worth as they occur from day to day, and also for the purpose of noting the source or cause of many of the changes in assets and liabilities. The temporary proprietorship records may be regarded as the chronicle or history of the economic life of the business. The efforts of the business to produce income with the least possible outgo in the form of costs or expenses, may be viewed as the work of forces or agencies striving toward that end. Every effort is offset by the cost of that endeavor, and unless the result of the effort be more than its cost, its aim, viz., the increase of net worth, is not accomplished.

These income-producing efforts are the agencies that bring about the changes in the values of assets and liabilities. Expenses and costs are incurred for the purpose of securing income. Every expense or cost that is paid for, causes a diminution of business assets, usually of the asset cash. If not paid for, it causes an increase in the liabilities, usually the accounts payable. Both of these conditions result in a decrease in the net worth.

On the other hand, every item of income, as when a sale of goods is made, is reflected in an increase of assets or a decrease of liabilities. The result of every sale is usually an increase in the cash or in the claims against persons, the accounts receivable. The sale may sometimes result in a lessening of liabilities through a cancellation of the claims of creditors by means of the claims against customers arising out of the sale. This would be true when goods are bought from, and sold to, the same person. Thus, there is constantly a direct interrelation between the financial and the profit and loss elements of every business.

Exchanges within the Asset and Liability Groups.—All changes in individual assets and liabilities, however, are not always the result of business or economic forces. There may be an even exchange of one asset for another asset, as when delivery equipment is purchased for cash. The asset, Delivery Equipment, is increased by the same amount as the asset, Cash, is diminished. Or if a bill of goods is purchased on credit, an increase of assets is exactly offset by an increase in liabilities.

It is seen, therefore, that the changes in individual assets and liabilities are not so certain an index of changes in proprietorship as those registered by the temporary proprietorship records. The vital history of a business is its profit and loss record, the story of its economic life. As a means of control this is of first importance because it chronicles the causes of most changes in financial condition. The statement of financial condition may be looked upon as a picture of the framework, the skeleton of the business personality, upon which is superimposed its economic structure. When both the financial framework and the profit and loss summary are given, it is possible with reasonable accuracy to tell the whole history of the business activities for the period covered.

Interrelations Illustrated.—To show the interactions between the balance sheet and the profit and loss groups of records, the following illustration is given. This is based on the comparative balance sheet of The Jackson and Edwards Co. shown on page 606, indicating the condition of the business at the beginning and the end of the year, and on the corresponding profit and loss statement for the current year shown in the first column of the illustration on page 611. The following additional information is available from supporting schedules not here shown:

Depreciation of plant and equipment $15,000, included in the Cost of Goods Manufactured. Dividends paid during the year $12,000.

By starting with the financial condition as indicated by the balance sheet at the beginning of the period and working into it the operations for the year as shown by the statement of profit and loss, and by using the balance sheet at the end of the period as a goal, we can trace the probable interaction of the two types of records for the period.

Interrelation Between Sales, Accounts Receivable, and Cash. In these two statements, if to the *net* outstanding accounts at the beginning of the period are added the net sales for the period as shown in the profit and loss summary, and if from their sum is deducted the sum of the sales discounts allowed customers, the estimated decrease in the value of accounts receivable as shown by the bad debts expense, and the net outstanding

accounts at the close of the period, as shown by the comparative balance sheet, we arrive at the amount of cash received from customers during the year. This is shown by the following statement:

Accounts Receivable, June 30, 1929...	$125,000.00		
Less: Reserve for Doubtful Accounts	3,000.00	$122,000.00	
Net Sales for the year........		750,000.00	$872,000.00
Deduct:			
Sales Discount		$ 5,000.00	
Bad Debts Expense........		3,750.00	
Accounts Receivable	$150,000.00		
Less: Reserve for Doubtful Accounts	5,000.00	145,000.00	153,750.00
Cash Received from Customers during the year........			$718,250.00

Interrelation Between Purchases, Accounts Payable, and Cash. The amount of cash paid for merchandise during the year may be arrived at similarly, as indicated by the following statement:

Accounts Payable, June 30, 1929........		$ 50,000.00	
Cost of Goods Manufactured during the year	$490,000.00		
Less: Depreciation Expense (not paid in cash)........	15,000.00	475,000.00	$525,000.00
Deduct:			
Purchase Discounts		$ 5,500.00	
Accounts Payable, June 30, 1930........		40,000.00	45,500.00
Cash Paid for Merchandise during year........			$479,500.00

Other Sources of Cash Receipts. An inspection of the profit and loss statement shows income from interest of $250. As the balance sheet shows no accrued interest income, this amount must have been received in cash. An inspection of the comparative balance sheet shows the following receipts of cash:

Decrease in notes receivable for the year.....	$ 1,000.00
From sale of additional bonds payable........	50,000.00
From sale of additional capital stock.........	25,000.00

Cash Disbursements. Expenditures have been made for the following purposes:

1. Payments to creditors for merchandise of $479,500 as above.

2. Sales salaries $73,000. This amount is determined by considering the expense of $75,000, as shown by the profit and loss statement, in conjunction with the unpaid sales salaries, as shown by the comparative balance sheet. Thus, if to the unpaid sales salaries amounting to $3,000 at the beginning of the period, we add the sales salary expense of $75,000 incurred during the period and from their sum subtract the amount of unpaid salaries $5,000 at the end of the period, we arrive at the amount of $73,000 spent for salaries during the period.

3. Advertising $91,000. The advertising expense, including supplies, for the year is $90,000. Of this amount $4,000 was purchased during 1929 and brought forward from it. (See the comparative balance sheet.) Therefore, the current period spent only $86,000 cash to pay for its advertising expense and supplies. Since, however, more supplies were bought than were used, $5,000 being deferred to next period, the cash spent this period for advertising must have been $91,000, i.e., $86,000 + $5,000.

4. Sundry selling expense $10,000.

5. Office salaries $30,000.

6. Office supplies $5,000.

7. Insurance $2,000.

8. Taxes $3,000.

9. Sundry office expense $1,500. This expense amounts to $2,000 for the year, but $500 of this represents the write-off of Organization Expense—see the comparative balance sheet. Accordingly, only $1,500 of cash was expended this period for sundry office expense.

10. Interest cost $7,500.

11. Land $20,000.

12. Plant and equipment $30,000. The net value of this asset at the beginning of the year was $195,000, i.e., $225,000 – $30,000, the depreciation reserve. The depreciation expense for the year is given as $15,000. Hence, this value of $195,000 decreased $15,000 further during the year, to $180,000. Since, the net plant and equipment value at the end of the year was $210,000 (i.e., $250,000 – $40,000 the reserve), $30,000 cash ($180,000 + $30,000 = $210,000) must have been expended for additions and betterments during the year.

13. Notes payable $25,000—the decrease shown by the comparative balance sheet.

14 Dividends paid during the year $12,000.

Statement of Cash Receipts and Disbursements. If from the total cash available for use there is deducted the cash expended, as indicated above, the difference should indicate the amount of cash on hand at the close of the period. The balance of $25,000, as indicated by the tabulated statement in Form 70, is the amount shown by the comparative balance sheet as being on hand.

Cash Receipts:		
Balance on hand June 30, 1929	$ 20,000.00	
From Customers, as above	718,250.00	
Interest Income	250.00	
Notes Receivable	1,000.00	
Bonds Payable	50,000.00	
Capital Stock	25,000.00	
Total Cash available for use		$814,500.00
Cash Expenditures:		
For Purchases as above	$479,500.00	
Sales Salaries	73,000.00	
Advertising	91,000.00	
Sundry Selling Expense	10,000.00	
Office Salaries	30,000.00	
Office Supplies	5,000.00	
Insurance	2,000.00	
Taxes	3,000.00	
Sundry Office Expense	1,500.00	
Interest Cost	7,500.00	
Land	20,000.00	
Plant and Equipment	30,000.00	
Notes Payable	25,000.00	
Dividends	12,000.00	
Total Cash Disbursed		789,500.00
Balance of Cash on Hand June 30, 1930, per Balance Sheet		$ 25,000.00

Form 70. Statement of Cash Receipts and Disbursements

By a careful study of the interrelations between various items as explained above, the student will see that the interactions between all of the transactions for the year, as set forth in the comparative balance sheet and the profit and loss statement, have

been indicated and proved. The proof is secured in the tie-up between the figure of cash, as shown by the cash statement, and that shown in the comparative balance sheet statement as cash on hand at the end of the period. An understanding of all these interrelations between the assets, liabilities, capital, and income and expense items is valuable in the interpretation of the basic accounting statements.

Interpretation a Matter of Opinion.—The place of analysis as a preparatory stage in interpretation of accounting reports has been explained and illustrated. Analysis by means of percentages and ratios uses mathematical processes and is exact. On the other hand, from the very nature of reports and analyzed data, interpretation of them cannot be exact. Interpretation is an executive function and, except to a very limited extent, cannot be delegated to those of lesser rank to be made by rule of thumb. Because interpretation makes use of performance standards, which are so largely estimates and therefore matters of opinion, interpretation itself is largely a matter of opinion. The causes of variations between the standard and the actual are determinable not by exact rules and principles but are decisions reached or opinions expressed, based in large measure on factors outside the business, such as general economic conditions or local situations. The appraisal of the effect of these is mostly a matter of opinion. The accumulated business experience of the executive making the interpretation oftentimes gives him a "feel" of a situation or of a condition which an inexperienced person could not have.

The reader should, therefore, not expect to be able to appraise and evaluate accounting reports and data as expertly as those with a background of broad business experience and an intimate knowledge of the particular situation. It is possible, however, to acquire a knowledge of *methods* and *processes* of interpretation. To set forth these has been the main purpose of this chapter. With a knowledge of the way in which accounting data are assembled and summarized, a true appreciation is had of their dependability and their relative weights. This, coupled with a knowledge of the methods and processes of analysis and with the

way in which performance standards may be developed, gives an appreciation of the problems of interpretation and a sound foundation on which to rest the superstructure of experience. This is the only type of training for interpretation that can be secured from books.

INDEX

A

D

E

J

Q

R

S

W

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